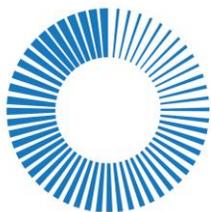


Pace Clock



For the System 6 Sports Timer Software User Guide

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1

Introduction

Thank you for purchasing the Pace Clock program for your System 6 Sports Timer. Pace Clock software is a full-featured yet easy to use automatic training aid designed to help you help your swimmers achieve peak condition. Pace Clock was developed with input from many experienced coaches to incorporate the features most helpful to them. If you have additional suggestions concerning Pace Clock, please contact your Sales Representative.

If you should experience difficulties with any of your Colorado Time Systems' equipment, check the appropriate user guide for a solution first. If the user guide does not offer a solution to the problem, call Colorado Time Systems' Customer Service Department toll-free (US and Canada) at 800-287-0653 or 970-667-1000 (international).

Installation of Pace Clock Software

Your System 6 will already have Pace Clock training software installed on it if you ordered the System 6 and the software at the same time. Otherwise, you will receive the software electronically (by email or via the internet).

Online installation:

Once you have purchased the software, you will be able to connect your System 6 to the internet and download the latest version of Pace Clock training software. You can also update your software this way, as newer versions are available. It's a good idea to check for updates at the beginning of each season.

USB/Floppy disk installation:

If you want to install from a USB key or floppy disk (depending on which one your timer supports), you can download the file from the website. See the Sport Loader manual for details on how to complete this installation. Updates are available this way as well.

NOTE: If the firmware revision on your System 6 is earlier than 1.34, you must update it so that the Pace Clock training software will run. There are two ways to do this:

- The easiest and fastest is to connect your timer to the Internet, as described above in online installation.
- Otherwise, contact CTS customer support (email customerservice@coloradotime.com or call 800-287-0653 or 970-667-1000. You will need your timer's serial number (found on the Diagnostics screen from the main Sport Loader menu). The customer service representative will email you an updated firmware file. Copy this file to a removable medium that your timer supports (USB or floppy disk), and it to install the firmware on

your System 6. The firmware must be the only file on the medium. Do not try to install software updates at the same time. Once the firmware is at revision 1.34 or higher, your timer can be updated by either of the methods described above.

Scope of this User Guide

This user guide addresses all issues relating to the normal operation of the Pace Clock program on the System 6 Sports Timer. It is written with the beginning timer operator in mind, but also contains detailed information of interest to experienced operators. Use the Table of Contents and Index to locate specific information quickly.

Contents

Chapter 1 – Contains introductory and background information on the Pace Clock program.

Chapter 2 – Covers Pace Clock program setup and basic operating instructions, including instructions to help you begin using Pace Clock right away.

Chapter 3 – This is the Reference section which describes in detail the operation of all Pace Clock program features. It includes descriptions of all key functions and contains display screen examples. Use this chapter to learn how to use specific features or to refresh your memory on any aspect of Pace Clock.

Index –Provides quick access to specific information.

System 6 Basics

Battery

An internal lithium ion battery provides backup power in case of emergency or power outage. To charge the battery, plug the System 6 into a grounded power outlet **with the unit turned off**. The charge time of the battery is a minimum of 3 hours, or overnight. The battery will provide approximately 45 minutes of *usage* time.

Proper Shutdown Procedure

When finished using the System 6, be sure to properly shut down your timer. The proper shutdown procedure is as follows:

1. On the softkey menu, choose *Misc*
2. Choose *Change Sport*
3. Confirm that you wish to leave pace clock
4. Choose *Shut Down* on the **Sport Loader Menu**, and press yes
5. Turn off the timer using the power switch on the back.

2

Setup/Operation

The first part of this chapter describes how to set up your Pace Clock program. Setup is easy, but must be done correctly to ensure proper operation of your Pace Clock and System 6 Sports Timer. The second part of this chapter gives you step-by-step instructions for setting up and saving a training program.

Hardware Setup

To set up the hardware for Pace Clock, ensure the following:

- Your System 6 can send data to the scoreboard, either because it is connected by data cables, or because it is connected to a wireless adapter to send the data wirelessly
- The Pace Clock keyboard insert is in your System 6. If the keyboard insert that's there isn't Pace Clock, slide it out and store it in a safe place. Slide the Pace Clock insert in.
- The Pace Clock software is installed and updated on your timer (see page 1, Chapter 1)



Figure 2-A: Sports Menu

Turn on your System 6. After the standard self-tests, the Sports menu appears, displaying the sports programs currently installed on your System 6. Press the **Pace Clock** softkey. Pace Clock loads and the Pace Clock main screen appears. See Figure 2-B for an example Main screen. You are ready to begin programming workouts.

Tips:

Softkeys are on the screen and correspond to the buttons of the face of the System 6.

Keyboard keys are on the lower keyboard and are labeled with the keyboard insert.

The **Enter** key on the lower right of the keyboard and the **Enter** key on the face of the System 6 function the same way; use whichever one is most convenient at the time.

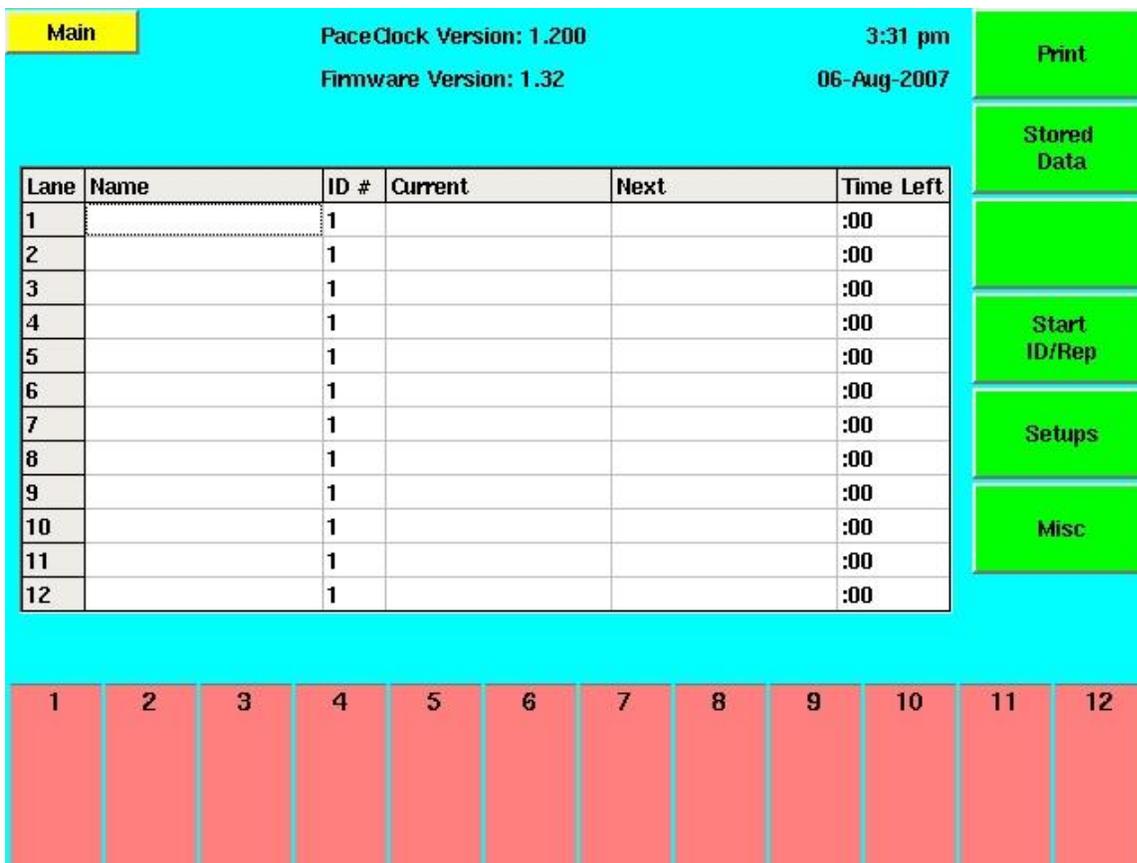


Figure 2-B Pace Clock Main Screen

Programming a Workout

To begin using Pace Clock, the first step is to program a workout. Programming Pace Clock is quite easy, and you should read through this section to be sure you are taking full advantage of its many features.

You will have the opportunity to program separate workouts for up to 12 lanes, and up to 100 different workout sets for each lane. You can assign a name to each lane (Sprinters, for example) or simply refer to workouts by lane number.

For each workout set, you can define:

- The number of repetitions (reps)
- The interval, or amount of time between the *start* of each rep
- Progression (setting the interval to progressively decrease by the number of seconds you choose). The default is no progression.
- Count direction (up or down)

OR, you can define a set as a rest set, with either a fixed or an indefinite length

To begin programming a workout, press the **Program** key (in the blue row on the keyboard insert) for the lane that you want to program. You can program any lane at any time. If you have trouble finding any of the keys indicated, turn to page 15 for a Pace Clock keyboard insert example.

Naming the lane

At any time while you are programming a lane, you may press the **Enter Name** softkey so that you may enter a name or number indicating whom the workout is for. This entry is for your reference only. Type the name (using the alphabetic keys on the keyboard) or number and press **Enter**, or simply press **Enter** to leave this field blank.

Main
Program

PaceClock Version: 1.200
3:33 pm
06-Aug-2007

Program Lane 1

Lane	Name	ID #	Reps	Time	Prog.	Dir.	Time Left
1		1	0	:00		UP	:00
2		2	0	:00		UP	:00
3		3	0	:00		UP	:00
4		4	0	:00		UP	:00
5		5	0	:00		UP	:00
6		6	0	:00		UP	:00
7		7	0	:00		UP	:00
8		8	0	:00		UP	:00
9		9	0	:00		UP	:00
10		10	0	:00		UP	:00
11							:00
12							:00

Total Workout Time: :00
Use arrow keys to move up and down

Enter Name
Progressive Set
Go to ID
Repeat ID
Rest
More

1 2 3 4 5 6 7 8 9 10 11 12

Figure 2-C Lane Program Window

Entering a Workout

The Reps field for ID# 1 is highlighted when you start programming a lane. This ID# corresponds to a workout set for the chosen lane. Type the number of times you want this first set to repeat using the numeric keypad and press **Enter**. If you need to clear a value at any time use the **C/E** key. After you enter the number of reps the highlight moves to the Time column. Use the numeric keypad to enter the time of each rep and press **Enter**. The first ID# is complete and the highlight bar moves to ID# 2. Program ID# 2 and as many others as you want, up to the maximum of 100 per lane. While you are programming a workout, the program screen displays the **Total Workout Time**. Use this convenient display to keep track of how long the current workout will take.

Workouts can be modified while the workout is running. This allows sets to be added or changed after practice has begun. Also, you can enter an additional set at the end of a workout and immediately start it.

Options

Progressive Set

By default, sets are not progressive. If you want to enter a progressive set, in which the interval progressively decreases by a fixed amount on each repetition, press the **Progressive Set** softkey. The highlight moves to the Prog. column. Use the numeric keypad to enter the number of seconds by which the interval will progressively decrease, and press **Enter**.

Count Up/Down

By default Pace Clock will count up on all sets. If you want Pace Clock to count down, press the **Count Up/Down** softkey. The **Count Up/Down** softkey is on the second page of softkeys and can be accessed by pressing the **More** softkey.

Rest intervals can be programmed between sets to allow time to explain the next set, provide performance analysis, rest the swimmers, etc. To program a Rest set, simply move the highlight bar to the desired ID# using the **up** or **down** arrow key and press the **Rest** softkey. The display enters **Rest** under the Reps column and prompts you to enter the duration of the rest. Type the duration of the rest period and press **Enter**. To program a rest set with an indefinite length, set the **Reps** to zero and the **Time** to zero. When this ID# is reached, the clock will stop and advance to the next set in the workout. It will not begin that next set until the **Start/Stop** key is pressed for that lane.

When you are done programming a lane, press **Quit** to return to the Main screen. You may then press another lane program key to program that lane's workout.

Program Mode Softkeys



Figure 2-D Program Mode Softkey Menu 1



Figure 2-E Program Mode Softkey Menu 2

Notice the Softkeys on the right edge of the display screen. You are already familiar with some of these keys from the instructions above. These keys help you program a workout. To repeat a workout set, move the highlight bar to the blank ID# to which you want to copy a workout set using the *up* or *down* arrow key and press the **Repeat ID** softkey. The display then prompts you to type the ID# from which to copy a workout set. Type the desired number and press **Enter**. The workout set information from the ID# you entered now appears to the right of the new ID#.

To insert a new ID# before one you have already programmed, press the **More** softkey to display the additional program softkeys and then press the **Insert ID** softkey. All workout sets below the highlight bar are pushed down one ID#. You can then program the blank ID# line as usual.

To delete the workout set for an ID#, press the **More** softkey, highlight the entry you want to delete using the *up* or *down* key, and press the **Delete ID** softkey. Be sure you select the correct ID# before you delete it! **Once you have deleted a workout set, it cannot be restored**, except by re-entering it.

Saving Workout Programs

After you have programmed the entire workout for a lane, you can copy it to as many other lanes as you like. To do this, press the program key for the new lane; press the **More** softkey and press the **Copy Another Lane** softkey. The display prompts you to enter the lane from which to copy the workout. Type the desired lane number using the numeric keypad and press **Enter**. All workout sets from the lane number you entered now appear under the new lane.

After programming workouts, you can save them for use at any time. To save a new set of workouts, press **Quit** to return to the Main screen and then press the **Stored Data** softkey. The display shows you the names of any other workout events already saved. Press the **Save Workout** softkey, type the name for the new workout event, and press **Enter**. To delete a workout, press the **Delete Workout** softkey, highlight the event you want to delete and press **Enter**.

If you have already programmed and stored a workout, press the **Stored Data** softkey and then press the **Load Workout** softkey. Select the desired workout using the **up** or **down** arrow key and press **Enter** to load. You are now ready to begin the workout.

When you exit the PaceClock program, the current workout is automatically saved and recalled the next time you enter the program. You can clear the current workout at any time by pressing **Clear Workout** in the **Misc.** menu.

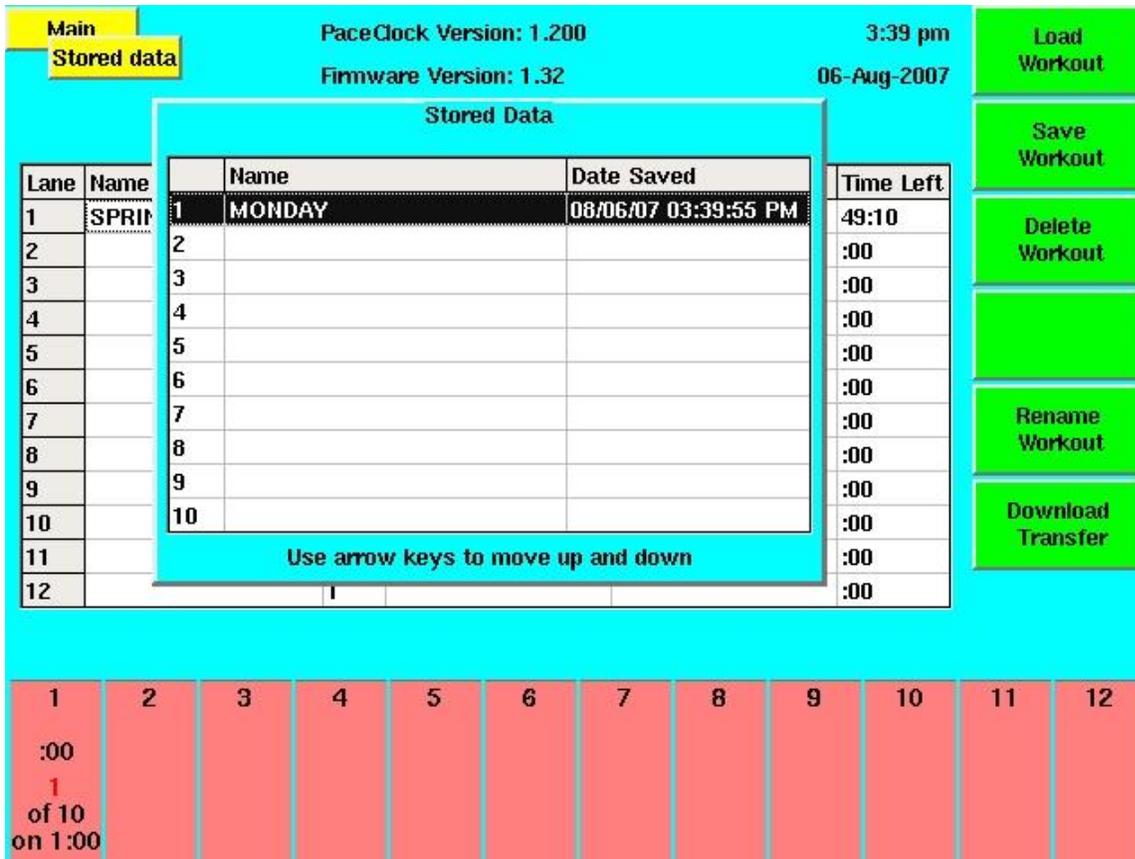


Figure 2-F Loading a Stored Pace Clock Workout

Using Pace Clock

Now that you have programmed Pace Clock, you can use it to automate your workouts. To begin a workout, load the desired workout from memory using the procedure described above. To start the programmed workout one lane at a time, press **Start/Stop** (in the red row on the keyboard insert) for that lane. To start or stop all lanes at once, press **Start/Stop All**.

This section described only the basic features of Pace Clock. For complete information on all features, turn to Chapter 3.

3

Reference

This chapter describes in detail the operation of the Pace Clock program, the function of each key on the keyboard, and all softkey functions. Screen display examples appear as appropriate. This chapter is not meant to be read from beginning to end. Instead, use it as a reference to learn about individual features and functions of Pace Clock. To locate specific information quickly, look up the desired feature in the Index or Table of Contents.

Loading Pace Clock

Summary

When you turn on your System 6, it performs its initialization procedure. After the initialization procedure is completed, the Sports Menu appears. The Sports Menu displays the sports programs currently installed on your System 6. Press the *Pace Clock* softkey to load Pace Clock. The program is now ready to use.



Figure 3-A Sports Menu



Figure 3-B Main Menu Softkeys

Display Screen

Summary

The display screen includes a screen identifier that is displayed in the upper-left corner of the screen. As you progress through various display screens using softkeys, a new identifier appears on top of the previous one to indicate the current screen. To return to the Main screen, press *Quit* one or more times.

Operation

Pace Clock uses the display screen to communicate a wide range of information. The status of the current workout is displayed at all times. Other important information displayed includes the ID# of the current workout set, information on the ID#'s in line, running times for all active lanes (displayed in the individual lane boxes), time remaining in the workout for each lane (displayed in the main table), scoreboard output status, and softkey functions available. The locations of these displayed items are indicated on the Main screen example, Figure 3-C.

Main PaceClock Version: 1.200 3:50 pm
 Firmware Version: 1.32 06-Aug-2007

Lane	Name	ID #	Current	Next	Time Left
1	SPRINTERS	1	10 @ 1:00	8 @ :30	49:10
2		1			:00
3		1			:00
4		1			:00
5	MIDDLE DIST	1	10 @ 2:00	10 @ 4:00	1:58:00
6		1			:00
7		1			:00
8		1			:00
9		1			:00
10	DISTANCE	1	10 @ 6:00	8 @ 12:00	2:30:00
11		1			:00
12		1			:00

Print
 Stored Data
 Start ID/Rep
 Setups
 Misc

1 :00 1 of 10 on 1:00
 2
 3
 4
 5 :00 1 of 10 on 2:00
 6
 7
 8
 9
 10 :00 1 of 10 on 6:00
 11
 12

Figure 3-C Pace Clock Main Screen

Keyboard

Summary

This section describes the function of the keys on the Pace Clock keyboard insert. The keys are described in order as they appear from left to right on the keyboard. Refer to the Index to locate a specific key description quickly. References to keyboard keys and softkeys appear in ***bold italic*** type in this manual.

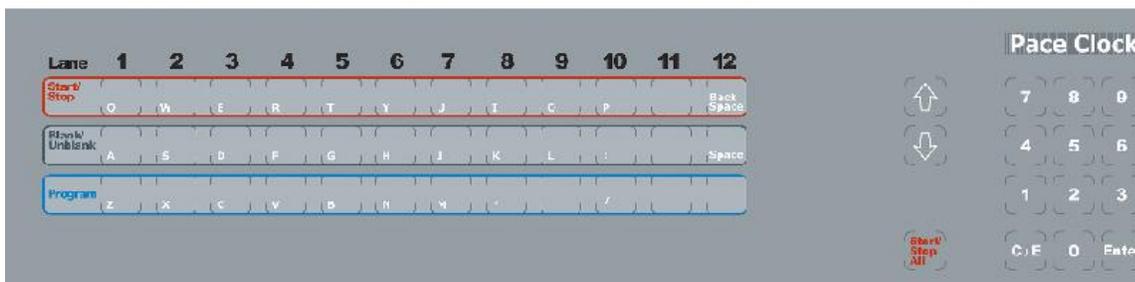


Figure 3-D Pace Clock Keyboard Insert

Alphabetic Keys

The alphabetic keys occupy the top three rows of the Pace Clock keyboard. They are arranged in standard typewriter order. Use these keys to enter names of swimmers, workouts, etc., when Pace Clock prompts you to do so.

(Lane) Start/Stop

The lane *Start/Stop* keys are located in the first (red) row under the lane numbers on the Pace Clock keyboard. These keys start or stop each lane, depending on current status. When a lane is restarted after being stopped, the running time for the current repetition is reset to 0:00 (or the maximum if the set is programmed to count down).

For example, if lane 1 is currently stopped, press the *Start/Stop* key for lane 1 to start the current set. To interrupt the workout for lane 1, press *Start/Stop* for lane 1. Press *Start/Stop* for lane 1 again to resume the workout, starting at the beginning of an interval. The lane boxes at the bottom of the screen are green for lanes that are running and red for lanes that are stopped.

(Lane) Blank Unblank

The *Blank/Unblank* keys are located in the second row from the top on the Pace Clock keyboard. Depending on current status, each key blanks or unblanks (turns off or on) the scoreboard display corresponding to the lane number above it at the top of the keyboard insert. This feature can be used to get the attention of the swimmer in a particular lane.

If lane 1 is currently on, press the *Blank/Unblank* key for lane 1 to blank its scoreboard display. To unblank the scoreboard display for lane 1, press the lane 1 *Blank/Unblank* key. If a lane is blanked, the word “BLANK” will appear in the lane status box at the bottom of the screen.

(Lane) Program

Function: The *Program* keys (the blue row on the keyboard) allow you to program the workout set for each lane. Pace Clock is designed to be used with a multi-line scoreboard. You can therefore program workout sets for each scoreboard module. If you find the scoreboard difficult to read, you may consider programming every other lane to improve readability.

Operation: At any time while you are programming a lane, you may press the *Enter Name* softkey so that you may enter a name or number indicating whom the workout is for. This entry is for your reference only. Type the name, using the alphabetic keys on the keyboard, or number and press *Enter*, or simply press *Enter* to leave this field blank.

The **Reps** field for ID# 1 is highlighted when you start programming a lane. This ID# corresponds to a workout set for the chosen lane. Type the number of times you want this first set to repeat using the numeric keypad and press *Enter*. If you need to clear a value at any time use the *C/E* key.

After you enter the number of reps the highlight moves to the Time column. Use the numeric keypad to enter the time of each repetition and press **Enter**. The first ID# is complete and the highlight bar moves to ID# 2. Program ID# 2 and as many others as you want, up to the maximum of 100 per lane. Notice that while you are programming a workout, the program screen displays the **Total Workout Time**. Use this convenient display to keep track of the total time of the current workout.

By default Pace Clock will count up time on all sets. If you want Pace Clock to count down, press the **Count Up/Down** softkey. The **Count Up/Down** softkey is on the second page of softkeys and can be accessed by pressing the **More** softkey.

If you want to enter a progressive set in which the time of each interval decreases by a fixed amount on each repetition, press the **Progressive Set** softkey. The highlight moves to the **Prog.** column. Use the numeric keypad to enter the number of seconds by which the interval will decrease for each repetition and press **Enter**.

Rest intervals can be programmed between sets to allow time to explain the next set, provide performance analysis, rest the swimmers, etc.

- To program a Rest set with a fixed length, simply move the highlight bar to the desired ID# using the **up** or **down** arrow key and press the **Rest** softkey. The display enters **Rest** under the **Reps** column and prompts you to enter the duration of the rest. Type the duration of the rest period and press **Enter**. Press the **Rest** softkey to toggle off of rest sets and back to programming regular sets.
- To program a rest set with an indefinite length, set the **Reps** to zero and the **Time** to zero. When this ID# is reached, the clock will stop and advance to the next set in the workout. It will not begin that next set until the **Start/Stop** key is pressed for that lane.

When you are done programming a lane, press **Quit** to return to the Main screen. You may then press another lane program key to program that lane's workout.

Note: Refer to the Program Screen Softkeys section beginning on page 20 for complete information on using softkeys while programming a workout.

Up and Down Arrow Keys

The **up** and **down** arrow keys move the highlight bar on the display screen up or down, allowing you to select the desired line on the screen.

Start/Stop All

Depending on current lane status, this key starts or stops the timer for all lanes simultaneously.

If all lanes are stopped, press **Start/Stop All** to start the pace clock for all lanes that have workout sets programmed. Press this key again to stop the pace clock for all lanes. If one or more lanes are currently running, press **Start/Stop All** starts the pace clock for the remaining lanes that have

sets programmed while not affecting the lanes that were already running. If you stop all lanes, the restart them (either one at a time or all at once) the running time of the current repetition will be reset to 0:00 (or the maximum if the set is programmed to count down).

Numeric Keypad



Figure 3-E Numeric Keypad

Allows you to enter numbers in response to a variety of prompts. Whenever a numeric entry is required, use the keypad to make the desired entry.

C/E (Clear Entry)



Allows you to clear an entry made in error. To clear an entry, you must press this key before pressing *Enter*.

Enter



Enters numeric or other keyboard entry into Pace Clock. This key works exactly like the Enter key located above the *Quit* key on the System 6 console. You may press either *Enter* key to accept an entry.

Console Keys

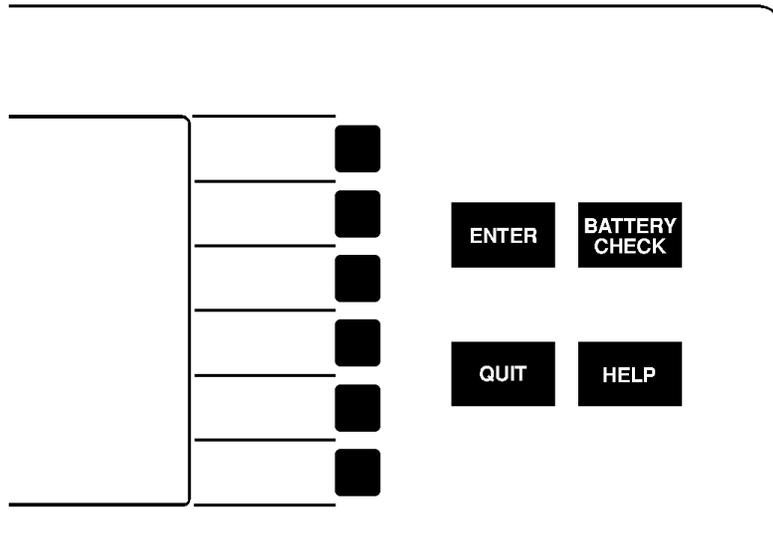


Figure 3-F Console Keys

Summary: The Console Keys are located to the right of the display screen, as shown in Figure 3-F.

Enter

Enters numeric or other keyboard entry into Pace Clock. This key works exactly like the *Enter* key located on the numeric keypad on the System 6 lower console. You may press either *Enter* key to accept any entry.

Quit

Press *Quit* to exit a prompt after entering data. This key also allows you to cancel an operation that requires an entry without changing the current setting. No information is entered if you press *Quit* instead of *Enter*.

Battery Check

This key does not currently work.

Help

Press *Help* to display context-sensitive help for the currently displayed screen. Press *Quit* to exit the help screen.

Softkeys

Summary: This section describes the operation of the Pace Clock softkeys. The softkeys are the column of six unlabeled keys to the immediate right of the display screen. The function of each key varies depending on the operation selected. The screen displays the function currently available directly to the left of each softkey. If no label appears next to a softkey, that key is inactive. See Figure 3-G for an example of the main softkey menu.



Figure 3-G Pace Clock Main Softkey Menu

Operation: Each softkey's functions are organized in layers or levels. The first level consists of the five softkeys displayed when you first turn on Pace Clock. This is the Main softkey menu. When you press one of these softkeys, a second level offering more specific choices is displayed.

If you press a softkey by mistake, or want to return to the Main screen after using a softkey, press *Quit*. If you have not pressed Enter after typing an entry, pressing *Quit* exits without saving that entry.

Program Softkeys

Function: When you press one of the lane Program keys, the Lane Program window is displayed. An example Lane Program window appears in Figure 3-H.

Operation: While Pace Clock is in program mode, the main Program softkey menu appears. You create a workout program by using a combination of Program softkeys and keyboard keys. An example of this softkey menu is shown in Figure 3-H.



Figure 3-I Program Softkey Menu 1

Progressive Set

Press the ***Progressive Set*** softkey to create a decreasing time interval for an ID#. For example, if there are 3 reps, the Time is :40 and the Prog. is :02, the 3 intervals will be :40, :38, and :36 seconds.

Go to ID

Press the ***Go to ID*** softkey, enter the ID# to go to, and press ***Enter***. The highlight moves to the entered ID#.

Repeat ID

With the highlight bar on a blank ID# line, press the ***Repeat ID*** softkey, enter the ID# to repeat, and press ***Enter***. The Reps and Time from the specified ID# appear on the new ID# line.

Rest

On the desired blank ID# line, press the ***Rest*** softkey to insert a rest period into the workout you are programming. The word ***Rest*** appears in the Reps column. Type the duration of the rest period and press ***Enter***. Press the ***Rest*** softkey again to toggle off of rest sets and back to programming regular sets.

When the scoreboard is displaying a rest set, the repetitions digit is replaced by a small letter “r”.

More

Press this key to toggle between the two Program softkey menus. The second Program softkey menu is shown in Figure 3-J.

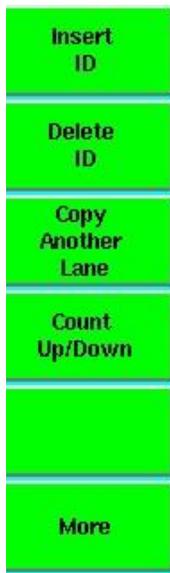


Figure 3-J Program Softkey Menu 2

Insert ID

Position the highlighted bar on the desired ID# using the *up* or *down* arrow key and press the *Insert ID* softkey to insert a blank ID# line. All lines below the newly inserted line move down the ID# list one position.

Delete ID

Position the highlighted bar on the desired ID# using the up or down arrow key and press the *Delete ID* softkey to delete the ID#. All lines below the deleted line move up the ID# list one position.

Copy Another Lane

This key copies the entire workout from another lane that you have already programmed. Press the *Copy Another Lane* softkey and enter the lane number from which to copy. Press *Enter* to complete the transfer.

Note: If you are copying a workout to a lane that already has workout information programmed, the existing workout is erased when you copy information from another lane. Be careful when using this key to avoid inadvertently destroying desired program information.

Count Up/Down

Press the *Count Up/Down* softkey to change the direction in which the timer counts. Notice the DOWN or UP text to the right of the Prog. column on the program window, indicating the direction of counting.

Print

The **Print** softkey allows you to print the workout for individual lanes, or for all lanes. Make sure the printer is properly attached to your System 6, is on-line, and is loaded with paper before attempting to print. Notice also that a lane selection window appears on the display screen. This window allows you to select the lane(s) you want to print.

The screenshot displays the PaceClock interface. At the top, it shows 'Main' and 'Print' softkeys, 'PaceClock Version: 1.200', 'Firmware Version: 1.32', the time '9:29 am', and the date '11-Sep-2007'. On the right side, there are three green buttons: 'Print Lane 1', 'Print All Lanes', and 'Form Feed'. The central part of the screen features a table with the following data:

Lane	Name	ID #	Current	Next	Time Left
1	SPRINT	1	20 @ :30	10 @ 1:00	19:30
2		1			:00
3		1			:00
4		1			:00
5	MID	1	10 @ 2:00	6 @ 3:00	36:00
6		1			:00
7		1			:00
8	DIST	1	6 @ 8:00	4 @ 12:00	1:28:00
9		1			:00
10		1			:00
11		1			:00
12		1			:00

Below the table, the instruction 'Use the arrow keys to move up and down' is displayed. At the bottom, a red lane selection window shows 12 columns. The first column (Lane 1) is highlighted and contains the text: ':00', '1', 'of 20', 'on :30'. The fifth column (Lane 5) contains: ':00', '1', 'of 10', 'on 2:00'. The eighth column (Lane 8) contains: ':00', '1', 'of 6', 'on 8:00'.

Figure 3-K Print Softkey Menu

Print Lane

Move the highlight bar to the desired lane using the **up** or **down** arrow key and press the **Print Lane** softkey. Notice that the lane number displayed with this softkey changes to indicate the selected lane. Repeat the process to print the total workout for other lanes.

Print All Lanes

Prints the workout for all lanes for which a workout set is programmed.

Form Feed

This key advances the paper to the top of the next page. Provides page breaks between pages of workout information. Press the **Form Feed** softkey when you want to end a page. Any information printed after a form feed begins at the top of the next page.

Stored Data

The *Stored Data* softkey allows you to save the current workout and provides access to workouts that have already been saved. Pressing the Stored Data softkey displays the *Stored Data* screen and softkey menu. All workouts stored are retained in memory when you turn off your System 6.

Speedometer Version: 1.200
Firmware Version: 1.32
3:39 pm
06-Aug-2007

Main
Stored data

Stored Data

Lane	Name	Date Saved	Time Left
1	SPRINT		49:10
2			:00
3			:00
4			:00
5			:00
6			:00
7			:00
8			:00
9			:00
10			:00
11			:00
12			:00

Use arrow keys to move up and down

Load Workout
Save Workout
Delete Workout
Download Transfer

1 2 3 4 5 6 7 8 9 10 11 12
:00
1
of 10

Figure 3-L Stored Data Screen

Load Workout

Press the **Load Workout** softkey and use the **up** or **down** arrow key to highlight the workout set you want to load. Press **Enter** to load the selected set or press **Quit** to cancel the Load Event function without loading a workout.

Save Workout

After programming a workout set, press the ***Save Workout*** softkey to store it in memory. The display prompts you to name the event you want to save. Type a name that will help you remember the content of the workout and press ***Enter***. Press ***Quit*** to return to the Main screen.

Delete Workout

Operation: Press the ***Delete Workout*** softkey and then use the up or down arrow key to highlight the workout event you want to delete. Press ***Enter*** to delete the selected event. After deleting unwanted workout events, press ***Quit*** to return to the Main screen.

Caution: Make sure the workout you have selected is the one you really want to delete. Once you delete a workout, it is gone forever. If you delete a workout by mistake, you must re-program it from scratch!

Rename Workout

If there is a saved workout selected in the list, this feature will appear and allow you to change the name.

Download Transfer

Function: Allows you to transfer a downloaded workout program from a PC to Pace Clock. This feature requires separate workout management software for your PC.

Operation: Follow the directions in your workout manager program.

Start ID/Rep:

The ***Start ID/Rep*** softkey allows you to select the ID# and Repetition with which to begin a workout session. You may also use this key to skip parts of a workout.

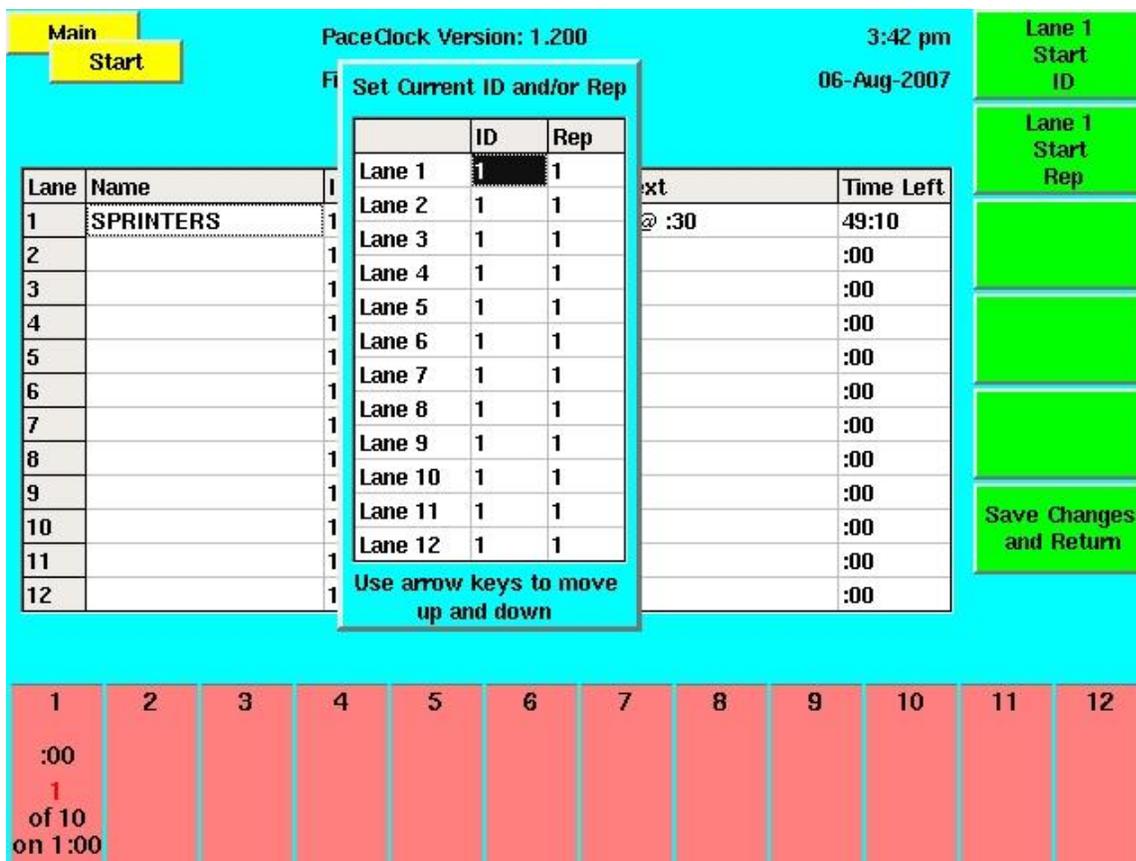


Figure 3-M Start ID/Rep Window

Lane Start ID

Highlight the desired lane using the *up* or *down* arrow key. Then press the *Lane Start ID* softkey to select the ID column, type the desired start ID# using the numeric keypad, and press *Enter*. Press *Quit* to return to the Main screen.

Lane Start Rep

Highlight the desired lane using the up or down arrow key. Then press the *Lane Start Rep* softkey to select the Rep column, type the desired start Repetition using the numeric keypad, and press *Enter*. Press *Quit* to return to the Main Screen.

Setups

Allows you to change the general settings, as well as the settings for the scoreboard, printer and the date and time. Press the *Setups* softkey to display the current setups. Use the softkeys or the up and down arrow keys to select the item to change. The *Save Setups* softkey allows to save the changes you have made to the setups while the *Restore Defaults* key will restore any changes back to the default settings.

General

Summary: Allows the user to modify settings relating to the System 6 hardware and their physical pool setup.

Operation: Press **1** to change the speaker volume. A volume of 0 is considered OFF. The highest volume is 3.

Press **2** to change the intensity of the LCD backlight with 1 being the dimmest and 9 being the brightest.

Press **3** to change to the number of lanes in the pool. Changing this option will change the number of lanes for which a workout can be entered. If you reduce the number of lanes after programming data, any data programmed for lanes greater than the new number will be lost.

Scoreboard

Summary: Provides access to special scoreboard control and display features.

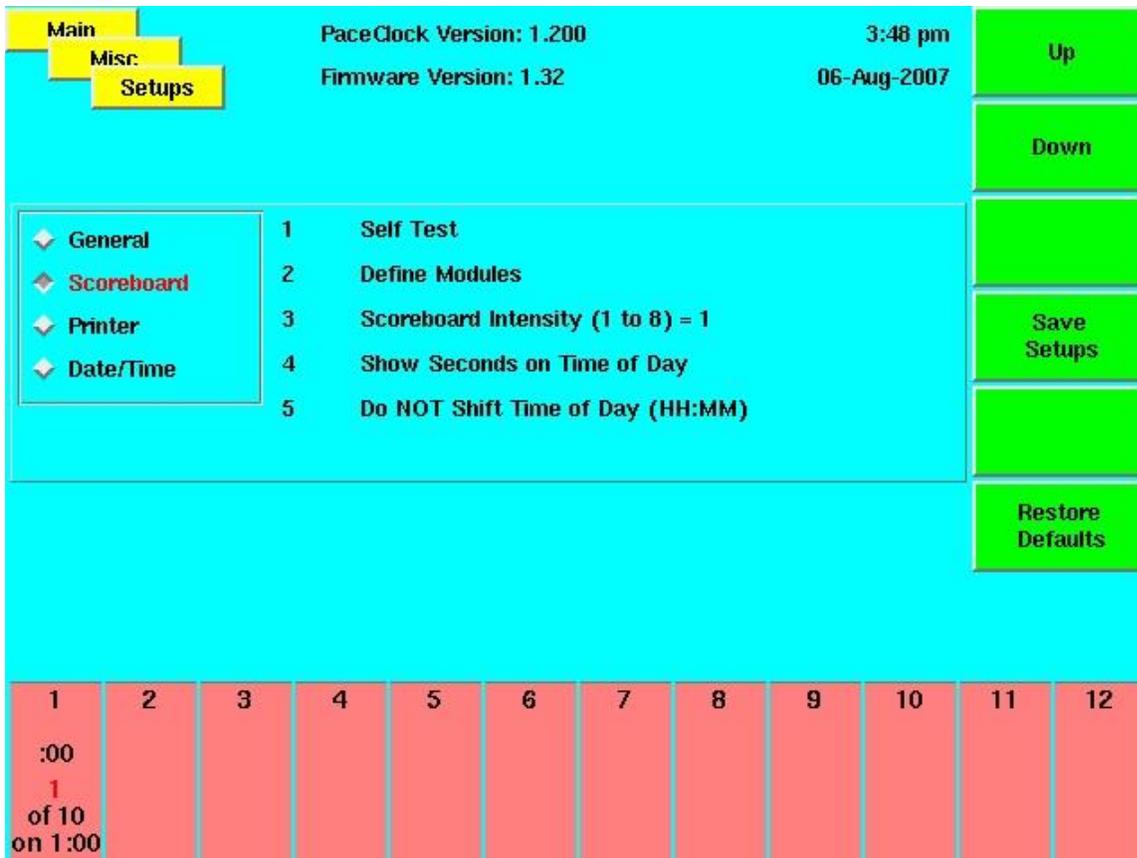


Figure 3-N Scoreboard Setups Menu

Self Test

Function: Displays the numeral **8** on all available scoreboard modules. Test each digit segment for proper operation and each module for proper connection to your System 6.

Operation: To initiate a scoreboard test, press **1**. Check your scoreboard for proper operation. On some scoreboard modules, only the first 6 digits of a line will be tested. If these operate properly, that line is functioning. If segments or digits do not operate properly, check all cable connections and run the test again. If your scoreboard still does not work properly, it may need service. Call Colorado Time Systems' Customer Service Department for assistance. Press **1** again to terminate the test

Define Modules

Function: This allows you to display or change the scoreboard module definitions.

Operation: Press the **2** to display your current scoreboard module definitions. The left column on the screen indicates the scoreboard channel display description. The right column indicates the scoreboard module on which the information in the other column is displayed.

Before attempting to define scoreboard modules, carefully read the Scoreboard section in Chapter 2 of your System 6 Swimming User Guide. As in Swimming, all Pace Clock scoreboard module logical addresses (modules) default to the physical addresses (scoreboard channels). For example, the physical address of the scoreboard module displaying data for lane 1 is 01. To display lane 10's data on the scoreboard module for lane 1, set lane 1's logical address (module) to 0A.

To change a module definition, press the **up** or **down** arrow key to highlight the desired display module and press **Enter**. The display indicates that you are editing the selected module. Use the numeric keypad to enter numbers and the alphabetic keyboard keys to enter letters. When you have entered the desired module definition, press **Enter** to accept the entry. If you change the wrong module or enter the wrong information, press **Quit** instead of **Enter** to clear the erroneous entry. After defining scoreboard modules, press **Quit** to return to the previous screen.

If you enter a module number for a module that is already defined, the two modules will swap places automatically. This prevents duplicate definitions from being entered.

Blank Module

This softkey allows you to blank a scoreboard module for the entire Pace Clock session. If you record a scoreboard setup with blanked module(s), the setup including the blanked module(s) is stored in permanent memory. Please note, while the effect is the same as pressing the **Blank** key for a given lane on the lower keyboard, this option cannot be toggled from the main screen.

Press the *up* or *down* arrow key to highlight the module you want to blank and press the **Blank Module** softkey. To unblank a module, highlight a blanked module, and press **Blank Module** again.

Show Defs. on Scoreboard

Allows you to show the current scoreboard module definitions on the board.

Default Scbds

This key allows you to set all scoreboard module definitions to their default state.

Press the Default Scbds softkey to set each module to its default definition. Press Enter to confirm that you want to reset all scoreboard modules.

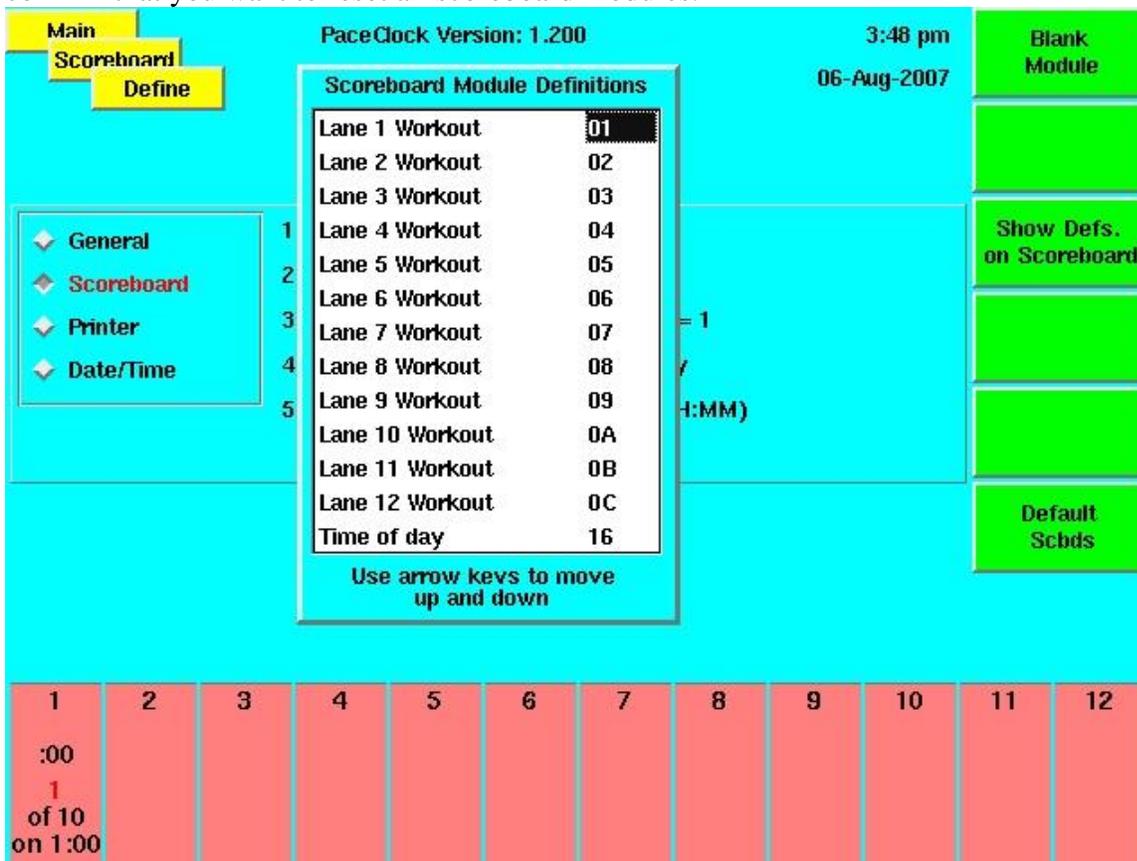


Figure 3-O Scoreboard Module Definitions Menu

Scoreboard Intensity allows you to choose the intensity of the scoreboard on an LED numeric scoreboard. Press **3** and then choose your preferred intensity by entering a number between **1** and **8**, with **8** being the most intense.

Show Seconds on Time of Day allows you to toggle between displaying and not displaying the seconds after the time of day on the scoreboard.

Shift Time of Day: If **Show Seconds on Time of Day** is enabled, this option will appear. If enabled, this option will display the time on the scoreboard in terms of minutes and seconds (MM:SS) instead of hours, minutes and seconds (HH:MM.SS). This allows the time of day to be displayed on LED PC-series pace clocks

Printer

Note: to use a USB printer, you must add it through the Sport Loader menu. See the Sport Loader manual for details.

Function: This option in the *Setups* menu allows you to control the printer setups.

Option **1** allows you to choose what type of printer you will be using. Press **1** until the model of printer being used is displayed, or select *other*.

Option **2** toggles between the different sizes of type.

Option **3** allows you to choose how many lines per inch will be printed.

To set the printer control codes, press **4** when the highlight is on the printer control code line. The printer control code window appears. You can enter printer control codes for Pica, Elite, Condensed and Super condensed type sizes, 6 lines per inch and 8 lines per inch. Select the item for which you want to enter printer control codes with the *Choices Up* and *Choices Down* softkeys, then use the numeric keypad to enter the ASCII value representing the code that you want to enter. Press the *Insert* softkey to place the ASCII value into the printer control code string. Press the *Delete* softkey to delete the highlighted ASCII value from the printer control code string. Use the *Left* and *Right* softkeys to move within the printer control code string.

Date/Time

Option **1** allows you to set the time of day. Press **1** and enter in the time in 24-hour format (using HHMMSS configuration).

Option **2** allows you to set the date. Press **2** and enter in the date (using MMDDYY format).

Option **3** allows you to toggle between a 24-hour and a 12-hour clock for the display. This option affects both the System 6 screen and the scoreboard.

The *Save Setups* softkey will save the changes you have made while the *Restore Defaults* softkey will restore the changes back to the default settings.

Misc

Press the *Misc* softkey to display the miscellaneous softkey menu. Press *Quit* to return to the Main screen when you have finished using miscellaneous features.

Main

PaceClock Version: 1.200
 Firmware Version: 1.32

2:24 pm
 12-Sep-2007

Misc

Clear Workout
 Change Sport
 Blank the Scoreboard
 Colors

Lane	Name	ID #	Current	Next	Time Left
1	SPRINT	1	20 @ :30	10 @ 1:00	19:30
2		1			:00
3		1			:00
4		1			:00
5	MID	1	10 @ 2:00	6 @ 3:00	36:00
6		1			:00
7		1			:00
8	DIST	1	6 @ 8:00	4 @ 12:00	1:28:00
9		1			:00
10		1			:00
11		1			:00
12		1			:00

1
:00
1
of 20
on :30

2

3

4

5
:00
1
of 10
on 2:00

6

7

8
:00
1
of 6
on 8:00

9

10

11

12

Figure 3-P Misc Softkey Menu

Clear Workout

This option will stop all lanes and clear all programmed data for each lane. This will have no effect on stored data. You will be asked to confirm this action before it takes effect.

Change Sport

This key allows you to exit Pace Clock so that you can select a different sport or shut down the timer. Press the *Change Sport* softkey. A confirmation screen will appear that asks you whether you want to exit the Pace Clock program. Press the *Yes* softkey to exit Pace Clock or the *No* softkey to return to Pace Clock.

Blank Scoreboard

Function: Cycles through three different modes for the scoreboard. The board can either be On, Blanked or Totally Blanked. When *On*, the scoreboard operates normally. When *Blanked*, the board will display nothing except the time of day on Channels 03, 0F and 16. When *Totally Blanked*, nothing will be displayed.

Operation: Pressing this softkey will set the board to the state currently listed on the button. For example, if the button says “Blank the Scoreboard” then pressing the button will cause every line to blank except for 03, 0F and 16 which will show Time of Day.

Colors

From this menu, you can change the color of the background, the softkeys and the menu tags. The color of the lane boxes and the on-screen data grids cannot be changed.

Fudge Factor (Hidden Softkey)

Function: The bottom key on the Misc softkey menu is not labeled. This is to prevent accidental alteration of the fudge factor. However, it is an active key that is used to program the fudge factor. This feature, which allows you gradually to increase the workout pace without the swimmers’ knowledge, was added at the request of many coaches. This key allows you to change the length of a second for timing purposes. The value you enter here indicates the number of actual hundredths of a second to use for each displayed second. For example, if you enter **95** for the timing factor, each second that Pace Clock counts and displays is actually only **0.95** of a second in duration. This feature is a useful training aid, allowing you to increase the pace of your workouts without reducing the displayed time.

Important: You, as the coach, must use this key with discretion to prevent injuries to your swimmers.



Figure 3-Q Fudge Factor

Operation: Press the bottom softkey on the *Misc* softkey menu to display the Fudge Factor. The display shows the current factor and allows you to enter a new factor. A factor of *00* corresponds to *100* hundredths per second, or no timing alteration. Enter the desired number of hundredths per second using the numeric keypad and press **Enter**. To exit without changing the timing factor, press **Quit** instead of **Enter**. To reset the timing factor to actual time, press **Clear**, and then type *00* and press Enter.

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