CHRONOS FX

Digital Game Clock

User's Guide

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INTRODUCTION

The CHRONOS **FX** Digital Game Clock has 8 Tournament Chess modes, 4 Blitz Chess modes, and 12 user-preset modes. It has options to save move-times, generate shuffle chess positions, and adjust the beeper pitch.

TURNING THE CLOCK OFF

The clock may be turned off **at any time** by pressing and holding the **center red button**, then pressing either **player button five times**.

TWO IMPORTANT DEFINITIONS

Long Press means to press the center red button for more than one second. (You will hear two short beeps when you have pressed it long enough.)

Short Press means to press the red button for less than one second. (If you hear two short beeps you have pressed it too long.)

Note: If no button is pressed for four hours, the clock will turn off automatically .

TURNING THE CLOCK ON

There are four ways to turn the clock on, depending on the mode you want to select.

1. Press the red button only. You will see **5:00 5:00** on the displays. This is the first of user preset modes **1 to 4.**

2. Press and hold the left play button, then press the red button. You will see **tn - 1 tn - 2** on the displays. These are mode identifiers for the first two of the four user preset modes **5 to 8.**

3. Press and hold the right play button, then press the red button. You will see **tc - 2 tc - 3** on the displays. These are mode identifiers for the first two of the four user preset modes **9 to 12.**

4. Press and hold both play buttons, then press the red button. You will see **F1 F2** on the displays. All modes are available.

Buttons Pressed	Modes Selected	Initial Display
Neither	Preset 1 to 4	5:00
Left	Preset 5 to 8	tn - 1, tn - 2
Right	Preset 9 to 12	tc - 1, tc - 2
Both	All	F1, F2

SELECTING A MODE

Turn the clock on in one of the four ways described above.

If you selected user presets **5 to 8, 9 to 12, or All,** you will see two mode identifiers, one on the left and one on the right. When mode identifiers are on the display, you may press either play button to select a mode. The starting times will appear, and you are ready to play. If later you want another mode, short press the red button 3 times to return to the mode identifier display. All modes and mode identifiers are listed on page 5. All modes are described in the **Description of the Modes** section.

The pre-programmed modes are listed below. It is assumed the user will modify these modes - these factory settings are suggestions only.

User preset	1	2	3	4
Time	5:00	2:00	1:30	0:10
Identifier	F1	F2	F3	F4

If you selected user preset modes 1 to 4, you will see 5:00 on the displays. This is five-minute chess, the factory programmed mode for **user preset 1.** Press the red button repeatedly to see the starting times for **presets 2, 3, and 4.** If you press the red button four times you return to user preset 1.

User preset	5, 6	7, 8	9, 10	11, 12
Identifiers	tn-1, tn-2	tn-3, tn-u	tc-2, tc-3	tc-4, tc-u

If you selected presets **5 to 8**, the first display will show mode identifiers for presets **5 and 6** (tn - 1, tn - 2). Press the red button again to see presets **7 and 8** (tn - 3, tn - u). If you press the red button a third time you come back to the first display.
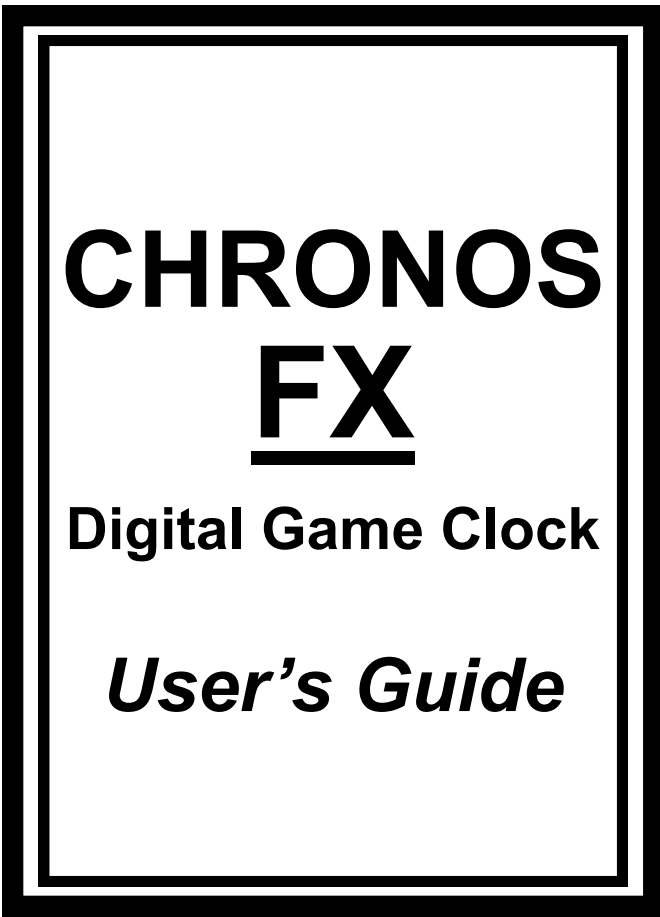
If you selected presets **9 to 12**, the first display will show mode identifiers for presets **9 and 10** (tc - 2, tc - 3). Press the red button again to see presets **11 and 12** (tc - 4, tc - u). If you press the red button a third time you will see **totl 000**. Modes 9 to 12 automatically save the time spent on each move and this display tells you how many move-times have been saved in the last game. For more information on this feature see the **How to Display the Move Times** section on page 5. If you press the red button again you will come to the first display.

If you selected **All Modes**, you may short press the red button repeatedly to cycle through all modes and mode identifiers. Press the left or right button to select a mode you want and the factory programmed starting time for that mode will appear. You may then enter **set mode** (described below) and change the times and mode options, and then copy your changes to a user preset 1 to 12. Any user preset is easy to access. See the section **Set New Starting Times - Illustration** page 3.

HOW TO START THE CLOCK

Use the procedure above to get the starting time on the display for the mode you want, and then just press either play button. Press the center red button if you want to stop the clock. To start it again, press either play button.

HOW TO STOP THE CLOCK

Just press the red button. Press either play button to restart the clock.

HOW TO RESET THE STARTING TIME

Press the red button to stop the clock. Then short press the red button one more time if it is a blitz mode, or four more times if it is a tournament mode to reset the clock.

HOW TO SET NEW STARTING TIMES AND PRESETS

With the mode in the starting position, **long press** the red button to enter set mode. Press a play button to change the flashing digit. Short press the red button to go to the next digit. If you short press the red button enough times you will come back to the first digit. **Long press** the red button to exit set mode. You are now ready to start the clock. **The next section illustrates this procedure.**

Note: If a game has already been started, you may **change the current display time only**, not any other time or time control.

Note: An **immediate second long press** of the red switch (right after the first one) skips setting the times, and goes directly to setting the programmable options. Use this when you want to change the options, but not the times.

SET NEW STARTING TIMES - ILLUSTRATION

This example shows how to change the times and options for all modes. For purposes of illustration it uses a specific mode called tc - 2. You do not need to understand the options shown below to do this exercise, but these options are explained in the **"Programmable Options" section (p 5)** and in the **"Description of the Modes" section (p 7)**.

1. Turn the clock on with both play buttons pressed. This will select all modes of the clock. The display will show F1, F2, mode identifiers for two blitz modes. Short press the red button twice. The display will show the 7-segment display version of "tc - 2, tc - 3".

2. Press the left play button. The display will show 0:30 30 0:30. This is the initial starting position for mode tc - 2, a chess tournament mode. Each player is required to make 30 moves in 30 minutes and if he does 15 minutes is added to his time for all the rest of his moves.

3. Long press the red button. The first digit will start to flash. Short press the red button repeatedly to cycle through all the times and options listed below. This will take 28 presses. The 29th press comes back to the first digit. Now long press the red button. The digits will stop flashing - the clock is out of set mode.

0:30 30 0:30	(30 moves in 30 minutes)
00 dl 00	(delay is 00)
00 in 00	(increment is 00)
00 Fd 00	(final delay is 00)
0:15 0:15	(15 minutes is added (after 30 moves))
00 dl 00	(delay is 00)
00 in 00	(increment is 00)
00 Fd 00	(final delay is 00)
beep 1	(clock will beep at each move)
led 1	(the led (light) will be on)
0 bp at end	(no beep at end)

0 bp at tc	(no beep at time control)
0 ht at end	(both sides will not be halted if one side runs out)
11 dp opt	(two display options are available)
copy to 0	(new settings are not saved unless 0 is changed to a number from 1 to 12)

4. Now long press the red button to enter set mode again. The flashing digits are changed by pressing the play buttons. Cycle through all the times and options listed above and change the settings to the ones listed below. Short press the red button to flash the next digit. Press a play button to change the value of a digit. If 2 digits are flashing, set them both before going to the next digit.

0:20 40 0:35	(one side is getting time odds)
05 dl 05	(delay is 05 seconds for each move)
02 in 02	(increment is 02 seconds at each move)
15 Fd 15	(final delay is 15 seconds)
0:10 0:15	(10 or 15 minutes is added (after 40 moves))
00 dl 00	(delay is 00)
00 in 00	(increment is 00)
30 Fd 30	(final delay is 30 seconds)
beep 0	(clock will not beep at each move)
led 1	(the led (light) will be on)
1 bp at end	(clock beeps at end)
1 bp at tc	(clock beeps at time control)
1 ht at end	(both sides halt if one side runs out)
00 dp opt	(two display options are not selected)
copy to 0	(new settings are not saved)

5. Now long press the red button to exit set mode. 0:20 40 0:35 will appear on the display. You may now start the clock. The time you have just set will remain the starting time until you change modes or turn the clock off. If the copy to 0 setting had been changed to, for example, 2, then the times and settings would be copied to user preset 2, and then, even if you turn the clock off, your new settings can be retrieved by simply bringing up user preset 2, as described on page 2.

Programmable Options		
(Enter set mode to program new values.)		

CLOCK DISPLAY			EXPLANATION
Left	Center	Right	
00	dl	00	**Delay time** for each move. The number means **seconds** for the tournament modes, and **tenths of seconds** for the blitz modes.
00	in	00	Number of seconds **added** at each move.
00	fd	00	When the total time goes below the **final delay** time, the player's time is automatically adjusted back up to the **final delay** time, after each move, unless the player oversteps.
beep		1	If on, the clock will beep each time a player moves.
led		1	If on, a red led will show which side is running.
0 bp	at	end	'0' means the clock will not beep when the time runs out. '1' means there will be 5 beeps, and '2' means there will be 120 beeps.
0 bp	at	tc	'1' means the clock will beep when a **new time control** starts.
0 ht	at	end	'1' means that **both sides** are stopped if one side runs out.
11 (1111)	dp	opt	Each mode has 2 (or 4) **display options**, which are explained in the **Description of the Modes** section.
copy	to	0	The settings can be saved to a **user preset** if the '0' is changed to a number from 1 to 12.

STARTING TIMES
(All Modes)
Note: **dl, in,** and **fd** are initially **00** for all tournament modes.

F1	TC - 2	TN - 1
5:00	0:30 30 0:30	0;30 0:30
dl = 00, **in** = 00, **fd** = 00	0:15 0:15	**TN - 2**
F2	**TC - 3**	1:00 1:00
2:00	1:00 30 1:00	0:30 0:30
dl = 00, **in** = 12, **fd** = 00	0:30 15 0:30	**TN - 3**
F3	0:15 0:15	1:30 1:30
1:30	**TC - 4**	1:00 1:00
dl = 15, **in** = 00, **fd** = 00	1:30 40 1:30	0:30 0:30
F4	1:30 30 1:30	**TN - U**
0:10	0:30 15 0:30	2:00 2:00
dl = 00, **in** = 00, **fd** = 10	0:15 0:15	1:30 1:30
	TC - U	1:00 1:00
	1:00 30 1:00	0:30 0:30
	0:30 20 0:30	
	0:20 15 0:20	
	0:10 10 0:10	

HOW TO DISPLAY THE SAVED MOVE-TIMES

Selecting any user preset mode, 9 to 12, automatically causes the time used on each move to be saved, accurate to the tenth of a second. This time includes all time used on the move, including any delay time. **Turn the clock on with the right button pressed and then short press the red button twice.** The display will show **totl xxx,** where xxx is the number of move-times saved. For example, a 40 move chess game would have 80 move-times saved. Press either play button to see the times. The left side shows the move-times with the format **xx:xx x,** that is, minutes:seconds, and where the small x is a tenth of a second. The right side shows the move number with an upper dash for white and a lower dash for black. Press either play button repeatedly to see all the move-times.

HOW TO PROGRAM THE BEEPER PITCH

1. Turn the clock on with both play buttons pressed. This will select all modes of the clock. The display will show **F1, F2.**
2. Long press the red button. The display will show **Ptch, Srnr.** Press the left play button to select the beeper pitch. The display will show **Ptch 2800.**
3. Now long press the red button to set a new pitch. Press the right play button to change the value of the pitch. Press the left play button to test the pitch. Short press the red button to go to the next digit.
4. Long press the red button when you have the pitch you want.
5. Experiment with settings between 2915 and 2945 to get the loudest beep. NOTE: the settings are relative and not the actual cycles per second of the sound produced. You may select values between 0000 and 2999.

HOW TO DISPLAY THE SERIAL NUMBER

1. Turn the clock on with both play buttons pressed. This will select all modes of the clock. The display will show **F1, F2.**
2. Long press the red button. The display will show **Ptch, Srnr.** Press the right button to select the serial number. Your clock's anti-theft serial number will appear on the display. This number will help you identify the clock if it gets lost.
3. Please record you serial number in the space below.

PLEASE DO THIS NOW.

DISPLAY OPTIONS

BLITZ MODES:

The blitz modes have **four display options**, selected in set mode, when the set mode display shows **xxxx dp opt.**

If the **first x** is 1, the display shows tenths of a second when the time goes below 1:40 (= 100 seconds). For example, if the time is 1:32, the display will show 92_0.

The **second x** (values from 0 to 3), selects the run indicator. The options are as follows:

    0 - none   1 - dot   2 - dash   3 - alternating dashes

The **third x** (values from 0 to 3) specifies how many leading zeros are blanked. For example, if the x is 2 and if the time is 00:15, the display will show just 15 (2 zeros blanked). (This option is not available if tenths of seconds is on.)

If the **fourth x** is 1, the display shows the delay time in tenths of a second. (With this option the maximum delay time is **9.9 seconds.**)

TOURNAMENT MODES:

The tournament modes have **two display options**, selected in set mode, when the set mode display shows **xx dp opt.**

If the **first x** is 1, the display will show minutes and seconds as soon as possible, that is when the time goes below 1:40 (1 hour, 40 minutes, which equals 100 minutes). For example, if the time is 1:30, (1 hour, 30 minues) the display will show 90:00.

The **second x** (values from 0 to 7) selects the **run indicator**, according to the following table.

Option number	Run Indicator for Hours/Minutes (3 digits)	Run Indicator for Minutes/seconds (4 digits)
0	Flashing colon	Flashing colon
1	Flashing colon	None
2	Alternating dots	Alternating dots
3	Alternating dashes	Alternating dots
4	Flashing dash	Flashing colon
5	Flashing dash	None
6	Alternating dashes	Flashing colon
7	Alternating dashes	None

SUGGESTIONS FOR USING THE PRESET MODES

1. Use preset modes 1 to 4 for common blitz chess setups.
2. Use preset modes 5 to 8 for common tournament chess setups.
3. Use preset modes 9 to 12 for tournament chess setups when you also want the move-times to be saved.
4. Use ALL modes to select the modes you want to program as presets.

Note: All preset modes are available with at most two switch presses after turning the clock on.

DESCRIPTION OF THE MODES

Notes: All time controls in all modes have options for delay on each move (up to 99 seconds), increment on each move (up to 99 seconds), and final delay for the last move (up to 99 seconds). These options may be combined in any time-control.

In all tournament modes:
   3 DIGITS on the display means HOURS/MINUTES
   4 DIGITS on the display means MINUTES/SECONDS

The number of square indicators at the left of the display shows the time-control number. No indicator means "main-time", one indicator means "first time-control", two indicators means "second time-control", etc.

* F1 to F4
These modes are all the same. The different mode identifiers make presets easier to set up. The maximum time is 99:99 (99 minutes, 99 seconds).

* TC - 2, TC - 3, TC - 4, TC - U
These are tournament modes with a move-counter, which is displayed in the center. White's clock should be started first in these modes so the move-counter will work correctly. When the moves for a time-control are completed, the time of the next time-control is added to the current time. tc - 2 has two time-controls with a requirement that a specific number of moves be completed before the first time-control runs out. tc - 3, and tc - 4 are similar but with 3 and 4 time-controls. tc - u has an unlimited number of time-controls, with the fourth time-control time repeating indefinitely.

* TN - 1, TN - 2, TN - 3, TN - U
These are tournament modes without a move counter. tn - 1 has one time control, tn - 2 has two, tn - 3 has three, and tn - u has an unlimited number, with the fourth time-control time repeating indefinitely. The delay time, if present, is shown in the center on each move.

SHUFFLE CHESS POSITION GENERATOR

Turn the clock on with both play buttons pressed, then long press the red button twice. You will see **SHF1   SHF2** on the displays. Press the left side to generate all positions including positions with bishops on the same color, or the right side to generate all positions with bishops on different colors.The initial display will show the pieces in the starting position (three dashes is the symbol for the queen, and two dashes is the symbol for the king in SHF1 and one dash is the symbol for the king in SHF2). **Short press the red button to generate a random position.**

HOW TO CHANGE BATTERIES

Replace the batteries when the display becomes dim. Turn the clock off, place it on a table, and remove the four screws holding the top on using a Phillips screwdriver. Carefully remove the top piece. Remove the screw holding the lid on the battery holder. Carefully remove the batteries and replace with three AA alkaline batteries. Be sure to place the flat or negative side of the batteries towards the springs. Replace the lid and replace the screws holding the top on. The batteries will provide power for approximately 600 hours of use.

CARE OF THE CLOCK

The clock should be kept away from high temperatures and long exposure to the sun since this will cause the displays to blacken. If the displays do accidentlally become black from heat, place the clock in a cooler area and the displays will return to normal in ten of fifteen minutes. Unless the heat was very intense the displays will not be damaged.

Avoid cold temperatures also, since this causes condensation inside the case. If condensation does occur, allow the clock to warm up and dry out before turning it on.

Use only a clean damp cloth to clean the clock. Do not use any solvents on the clock or displays.

Limited Warranty

DCI will repair or replace, without charge, any part of your clock which has a defect in material or workmanship during the first year after the purchase date.

This warranty does not apply to conditions resulting from consumer damage, such as: misuse, abuse, accident, alteration, dissembly, or reverse installation of batteries.

Without limiting the foregoing, damage from battery leakage, damage from dropping the clock, or damage to the LCD displays are presumed to have resulted from abuse or misuse.

No responsibility is assumed for any direct, incidental, or consequential damages resulting from the use, or inability to use, this product.

The consumer must keep a copy of his receipt, or of his cancelled check, verifying the purchase date to validate this warranty.

For service under this warranty send to

DCI
P.O. Box 390741
Mountain View, CA
94039