

HRT MAX

Heart Rate Monitor

OPERATION GUIDE



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INTRODUCTION

Our watches represent the finest quality in heart rate monitors available today. Using only the finest in electronic components and state-of-the-art technology, these monitors are among the most accurate and dependable products available on the market.

This monitor is designed for ease of use without the compromise found in many of its competitors. While we have designed our watches to withstand many of the pressures that outdoor life will place on it, please remember that it is a sensitive technical instrument. However, with the proper care and maintenance, it will last many years. Please read all sections of this manual carefully to familiarize yourself with how the unit works.

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WARNINGS AND CAUTIONS

WARNING: This product is an advanced training and fitness tool. Before starting any exercise program, we strongly suggest you visit your doctor for a complete physical and to discuss your exercise plans.

NOTICE TO SWIMMERS: The heart rate monitors are designed to be water resistant. This means that water should not enter the unit during normal swimming. However, care should be taken not to press the keys while the unit is submerged or wet as this may cause water to be forced past the key seals damaging the unit. However, operating heart rate monitors while in the water may cause other operational problems for a variety of other reasons. First, water may interfere with the ability of the sensors to detect a heart rate signal from the body. Overall, the likelihood of experiencing problems using a heart rate monitor will be much higher when the unit is used in a water environment.

NOTICE TO PEOPLE WEARING PACEMAKERS: While the heart rate monitor in the monitor unit is a passive system and should have no direct effect on a pacemaker, we strongly recommend anyone fitted with such a device contact their physician or cardiologist before using this product or starting an exercise program.





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HOW TO USE THIS MANUAL

This manual is laid out in easy to follow sections, which cover the features and functions of your monitor. These monitors are very advanced monitors and have many unique features and functions. Be sure to read each section carefully so that you will fully understand how the units and its features work.

The manual is divided into sections outlining each of the major functions of the watch. A drawing of the watch screen that represents the starting point or other important screen for each operational process is shown adjacent to the instructions for the process; important keys are shown in color indicating **PRESS & HOLD** and **QUICK PRESS**. The steps for the programming or operation are adjacent to the screen illustration. Key points and important information are shown in highlighted blocks.

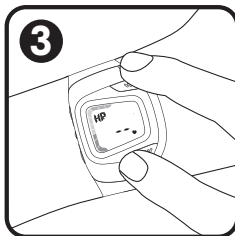
The heart rate monitor itself is an important part of this manual as it prompts you through its operation.

QUICKSTART INSTRUCTIONS

FINGER TOUCH HEART RATE MODE

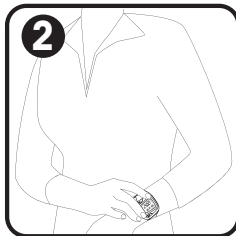


WEARING THE WATCH:
Strap on the HRM above the
wrist bone.



**TOUCH FINGERS TO
SENSORS:** Press sensor below
display screen with index
finger. Gently press sensor
above display screen with
middle finger (when wearing
watch on left hand).

TO MEASURE HEART RATE:
Keep arm below chest and
relaxed when in motion,
moving naturally.








READ HEART RATE: Keep
finger pads firm and stable on
sensors. Wait for beep before
raising arm to look at readout
(5-7 seconds). If unsuccessful,
moisten finger pads and try
again.



DISPLAY SYMBOLS AND THEIR MEANINGS

DISPLAY SYMBOLS

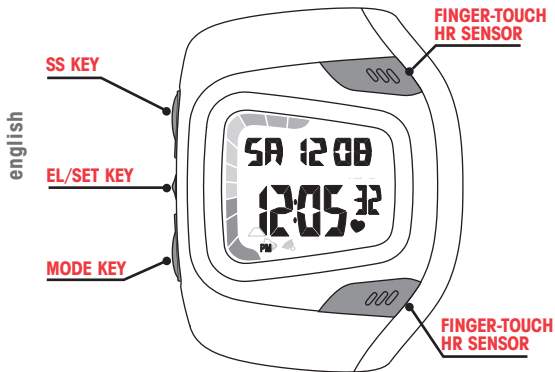
symbol	description	what it means
	CHIME ALERT	Audible key-beep and out-of-training zone alert is active when displayed
	HEART RATE	Blinks when unit is receiving heart rate
	PERCENT OF MAX HR	Designates number in field of as percent of maximum heart rate
	ALARM	Alarm is active when displayed
	ABOVE/BELOW ZONE	Indicates heart rate above or below selected training zone

MODE SYMBOLS

symbol	description	what it means
MAX	MAXIMUM HEART RATE	Indicates maximum heart rate for workout in Chronograph memory
AVG	AVERAGE HEART RATE	Indicates average heart rate for workout/lap in Chronograph memory
LAP	LAP/SPLIT	Displays when Chronograph is running and Lap Detail in Chronograph memory
STP	CHRONOGRAPH STOPPED	Displays when Chronograph is stopped
TMR	COUNTDOWN TIMER	Indicates Countdown Timer mode
KCAL	KCAL MODE	Indicates KCAL/Fat Burn mode
AL	ALARM MODE	Indicates Alarm mode

KEYS AND THEIR FUNCTIONS

The monitor has 3 individual keys and 2 Finger-Touch sensors. Each key has several functions. The drawing identifies the keys and their names as used in this manual.



KEY FUNCTIONS

SS KEY

- Changes 12/24 hr. time formats
- Stops/starts timing functions
- Advances Lap Chronograph
- Clears Chronograph memory
- Selects pounds or kilograms in KCAL mode
- Scrolls through days of week for daily Alarm
- Changes variable in Setting Sequence

EL/SET KEY

- Activate EL Backlight system
- Enter/exit Setting Sequence

MODE KEY

- Advances display through the various operational modes
- Selects variable in setting mode
- Selects Time Zones
- Activates Chronograph memory
- Selects Calories or Fat Burn in KCAL mode

KEYS AND THEIR FUNCTIONS

KEY ACTIONS – QUICK PRESS VS. PRESS AND HOLD

There are two key actions used to program the watch:

QUICK PRESS or PRESS

The key is pressed quickly and immediately released. This is the most common key action and is used for most aspects of operation.

PRESS & HOLD

The key is pressed and held for 2-3 seconds. This key action is generally used to initiate a programming or memory sequence or to enter a sub-mode.

NOTE 1: Generally, when entering a setting sequence, the word **HOLD** will appear on the top line of the display.

NOTE 2: In this manual, we will indicate when a **PRESS & HOLD** is required.

In most other instances a **QUICK PRESS** should be assumed.

PROGRAMMING THE WATCH – COMMON KEY ACTIONS

ENTER A PROGRAMMING SEQUENCE

PRESS & HOLD the **EL/SET** key.

The word **HOLD** will appear in the top line of the display. Continue to hold the key until the display automatically advances to the first variable in the programming sequence.

ADJUST VARIABLE IN A PROGRAMMING SEQUENCE

QUICK PRESS the **SS** key.

In most programming options, a **PRESS & HOLD** of the **SS** key will cause the variable to fast advance, allowing you to quickly advance to a different number.

CONTINUED NEXT PAGE

KEYS AND THEIR FUNCTIONS

ADVANCE TO NEXT VARIABLE IN A PROGRAMMING SEQUENCE

QUICK PRESS the **MODE** key.

When you have chosen the variable you want for a particular portion of a programming sequence **QUICK PRESS** the **MODE** key to set and advance to the next variable.

EXIT A PROGRAMMING SEQUENCE

PRESS & HOLD the **EL/SET** key to exit the setting sequence at any time.

Once all variables of a programming sequence have been entered, **QUICK PRESS** the **MODE** key to exit the programming sequence and return to the initial main display.

ACTIVATE THE DISPLAY BACKLIGHT SYSTEM

QUICK PRESS the **EL/SET** key.

Activate the backlight system at any time with a **QUICK PRESS** of the **EL/SET** key. The backlight will remain active for a period of 5 seconds. If, while the backlight is active, another key is pressed, the timer will be reset and the 5-second period will start again. This will happen for as long as keys are pressed. This allows you to easily operate and program the watch in low light situations.

NOTE: Excessive use of the backlight system will result in shorter battery life.

MODES OF OPERATION

MAIN DISPLAY MODES

Advance through the modes below using **QUICK PRESSES** of the **MODE** key.



TIME/DATE



CHRONOGRAPH



COUNTDOWN
TIMER



KCAL



ALARM



HEART RATE
(In all modes)

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SETTING THE WATCH FUNCTIONS

TIME/DATE MODE

VIEW TIME ZONE 1 / TIME ZONE 2

Your monitor allows you to set two separate time zones. In **TIME MODE**, Time Zone 2 can be accessed by a **PRESS & HOLD** of the **MODE** key. When viewing Time Zone 2, the display will indicate **T2** in the upper left of the display. **SELECT 12** or **24-HOUR** format using **QUICK PRESSES** of the **SS** key.

You can turn the **CHIME ALERT ON** or **OFF** by **PRESSING & HOLDING** the **SS** key in **TIME MODE**.



SETTING THE WATCH FUNCTIONS

SETTING TIME/DATE

1. Advance to **TIME** screen by **PRESSING** the **MODE** key.
2. **PRESS & HOLD** the **EL/SET** key to enter the setting sequence.
3. Select **HOURS DIFFERENCE BETWEEN TIME ZONE 1 & 2** (+1, -1 hours, etc.) using **QUICK PRESSES** of the **SS** key.
4. Advance to **SET HOURS** by **PRESSING** the **MODE** key. **ADJUST HOURS** using **QUICK PRESSES** of the **SS** key.
5. Advance to **SET MINUTES** by **PRESSING** the **MODE** key. **ADJUST MINUTES** using **QUICK PRESSES** of the **SS** key.
6. Advance to **SET YEAR** by **PRESSING** the **MODE** key. **ADJUST YEAR** using **QUICK PRESSES** of the **SS** key.
7. Advance to **SET MONTH** by **PRESSING** the **MODE** key. **ADJUST MONTH** using **QUICK PRESSES** of the **SS** key.
8. Advance to **SET DAY** by **PRESSING** the **MODE** key. **ADJUST DAY** using **QUICK PRESSES** of the **SS** key.
9. **PRESS** the **MODE** key to exit the setting sequence and return to **TIME OF DAY** screen.

NOTE: You can exit the setting sequence at any time by **PRESSING & HOLDING** the **EL/SET** key.



SETTING THE WATCH FUNCTIONS

SETTING THE CHRONOGRAPH

The monitor is equipped with a 24-hour, 26-lap chronograph.

The monitors have a programmable Training Zone settable in single beats per minute to target the intensity level of your exercise.

NOTE: To enter the Chronograph setting sequence, any previous workout information must be cleared by **PRESSING & HOLDING** the **SS** key for 2 seconds until the time display reads 00:00.

1. Advance to Chronograph by **PRESSING** the **MODE** key.
2. **PRESS & HOLD** the **SS** key to **CLEAR** previous workout.
3. Enter the **SETTING SEQUENCE** by **PRESSING & HOLDING** the **EL/SET** key.
4. Advance to set Training Zone by **PRESSING** the **MODE** key. **ADJUST UPPER LIMIT** using **QUICK PRESSES** of the **SS** key.



5. Advance to set Lower Limit by **PRESSING** the **MODE** key. **ADJUST LOWER LIMIT** using **QUICK PRESSES** of the **SS** key.
6. **PRESS** the **MODE** key to **EXIT** the setting sequence and return to Chronograph screen.

NOTE: You can exit the setting sequence at any time by **PRESSING & HOLDING** the **EL/SET** key.

SETTING THE WATCH FUNCTIONS

SETTING THE TIMER

The monitor is equipped with a 100-hour countdown timer with 1-second resolution.

1. Advance to Timer by **PRESSING** the **MODE** key.
2. **PRESS & HOLD** the **EL/SET** key to enter the setting sequence.
4. Adjust Hours using **QUICK PRESSES** of the **SS** key.
5. Advance to Set Minutes by **PRESSING** the **MODE** key. **ADJUST MINUTES** using **QUICK PRESSES** of the **SS** key.
6. Advance to set Seconds by **PRESSING** the **MODE** key. **ADJUST SECONDS** using **QUICK PRESSES** of the **SS** key.
7. **PRESS** the **MODE** key to **EXIT** the setting sequence and return to Timer screen.



SETTING THE WATCH FUNCTIONS

KCAL (CALORIES) MODE

The monitor is programmed to calculate calories burned during your workout using your weight, gender and pre-programmed metabolic work constants. This is useful when comparing exercise volume of different fitness activities.

The watch also allows you to program a **CALORIES TARGET** for your workout. The **GRAPHIC DISPLAY BAR** on the left side of the display screen indicates progress toward **CALORIES TARGET**. Each segment represents 10% of **CALORIES TARGET** in **KCAL** mode.



FAT BURN mode estimates body fat burned during exercise. In **KCAL** mode, you can select **CALORIES DISPLAY** or **FAT BURN DISPLAY** by **PRESSING & HOLDING** the **MODE** key.

The monitor uses this information to estimate your maximum heart rate. If you know your actual maximum heart rate, you can adjust the variable in the setting sequence.



NOTE: You must clear data in the **CHRONOGRAPH** to set data in **KCAL** mode.

SETTING THE WATCH FUNCTIONS

SETTING CALORIES DATA

1. Advance to **KCAL** mode by **PRESSING** the **MODE** key.

2. **PROGRAM** your **RESTING HEART RATE** by touching the Finger Touch sensors with your index and middle fingers until the watch registers a heart rate. (You must be wearing the watch to acquire heart rate.)

You may **VIEW** your **RESTING HEART RATE** in **KCAL** mode by **PRESSING & HOLDING** the **SS** key

3. Select **FAT BURN** mode (indicated by **LB** or **KG** in upper left display) by **PRESSING & HOLDING** the **MODE** key for 2 seconds.

4. Select **WEIGHT UNITS (LB or KG)** in upper left display) using **QUICK PRESSES** of the **SS** key.

5. **PRESS & HOLD** the **EL/SET** key to enter the setting sequence.



6. **ADJUST GENDER** using **QUICK PRESSES** of the **SS** key.

7. Advance to set Weight by **PRESSING** the **MODE** key. **ADJUST WEIGHT** (pounds or kilograms) using **QUICK PRESSES** of the **SS** key.

8. Advance to set Age by **PRESSING** the **MODE** key. **ADJUST AGE** using **QUICK PRESSES** of the **SS** key.

9. Advance to set Calories Target by **PRESSING** the **MODE** key. **ADJUST TARGET** (TG upper left display) using **QUICK PRESSES** of the **SS** key.

10. Advance to set Maximum Heart Rate by **PRESSING** the **MODE** key. The watch will display your Estimated Maximum Heart Rate (**EM**) in the upper line of the display screen. If you know your actual Maximum Heart Rate, **ADJUST** using **QUICK PRESSES** of the **SS** key.

11. **PRESS** the **MODE** key to exit the setting sequence and return to **KCAL** screen.

NOTE: You can exit the setting sequence at any time by **PRESSING & HOLDING** the **EL/SET** key.



SETTING THE WATCH FUNCTIONS

ALARM MODE

The monitor is equipped with an alarm, which can be set for any single day of the week or every day.

SETTING ALARM

1. Advance to **ALARM** mode by **PRESSING** the **MODE** key.
2. **SELECT DAY, ALL** or **OFF** (upper left of display) by **PRESSING** the **SS** key.
3. To **SET ALARM TIME**, enter the setting sequence by **PRESSING & HOLDING** the **EL/SET** key.
4. **ADJUST HOUR** using **QUICK PRESSES** of the **SS** key.
5. Advance to **SET MINUTES** by **PRESSING** the **MODE** key. **ADJUST MINUTES** using **QUICK PRESSES** of the **SS** key.
6. **PRESS** the **MODE** key to exit the setting sequence.



OPERATING THE WATCH

OPERATING THE CHRONOGRAPH

Your monitor is equipped with a 24-hour 26-lap chronograph. For the first 59m 59s of timing the resolution is 0.1 second. After the first hour the resolution of the timing is seconds.

The **top line** of the display details the **CURRENT LAP NUMBER**. The **lower display line** is **TIME FOR CURRENT LAP**. When the Chronograph is running, the **middle line** of the display will indicate **LAP**. When the Chronograph is stopped, the middle line of the display will indicate **STP**.

When you advance to a new lap, the **upper line** will display **TOTAL ELAPSED TIME** for workout and the **lower line** will display **TIME FOR PRECEDING LAP**.



You can **VIEW YOUR HEART RATE** in any Mode by touching the sensors on the top plate with your index and middle fingers for 5 seconds. **HEART RATE** will display for 2 seconds then display return current operating mode. This is also a convenient way to monitor your waking or resting heart rate if you are on a competitive training program.



OPERATING THE WATCH

OPERATING THE CHRONOGRAPH

1. Advance to **CHRONOGRAPH** by **PRESSING** the **MODE** key.
2. **PRESS & HOLD** the **SS** key to clear data from previous workout.
3. To **BEGIN TIMING**, **PRESS** the **SS** key.
4. Use **QUICK PRESSES** of the **SS** key to **ADVANCE THE LAP CHRONOGRAPH**. The **top line** will display **TOTAL ELAPSED TIME** for approximately 5 seconds then return to display **LAP NUMBER**. The **lower line** will display **CURRENT LAP TIME**.
5. To **STOP TIMING**, use **2 QUICK PRESSES** of the **SS** key. To **CONTINUE TIMING**, **QUICK PRESS** the **SS** key.



6. To **CLEAR CHRONOGRAPH**, **PRESS & HOLD** the **SS** key when **CHRONOGRAPH IS STOPPED**.

NOTE: The Chronograph must be activated to record heart rate and KCAL mode information.

NOTE: Lap Chronograph will advance when restarting the Chronograph.

OPERATING THE WATCH

CHRONOGRAPH MEMORY PLAYBACK

The monitor is equipped with a memory that gives you detailed information playback of your completed workout.

1. In **CHRONOGRAPH** mode with the **CHRONOGRAPH STOPPED** **PRESS & HOLD MODE** key. The first two screens are summaries of entire workout.
2. **Upper line** displays **TOTAL TIME FOR WORKOUT** followed by **NUMBER OF LAPS** and **AVERAGE LAP TIME** (example: 06:03:58 = 6 laps, 3 min. 58 sec. Average per lap).

Lower line displays **MAXIMUM HEART RATE** with **PERCENT OF MAXIMUM HR** (in small numbers, lower right) followed by **AVERAGE HEART RATE** for workout with percent of maximum (in small numbers, lower right).

NOTE: If heart rate is above or below target zone the number will blink on and off.

PRESS the **MODE** key to advance to next screen.



3. **LAP DETAIL** is displayed in descending order (last lap completed to first).

Upper line blinks to display **LAP NUMBER** followed by **LAP TIME**.

Lower line displays **AVERAGE HEART RATE FOR LAP** and **PERCENT OF MAXIMUM**.

PRESS the **MODE** key to advance to previous lap.

4. You may exit the Memory Playback at any time by **PRESSING & HOLDING** the **MODE** key.

OPERATING THE WATCH

OPERATING THE COUNTDOWN TIMER

The monitor is equipped with a Countdown Timer for time-based and interval workouts. The Countdown Timer operates independent of the Chronograph and will not effect its operation.

DISPLAY: Upper line displays **TIMER**. Lower line displays **TIME OF DAY**.

NOTE: Chronograph must be activated to record heart rate and KCAL information.

1. Advance to **TIMER** mode by **PRESSING** the **MODE** key.
2. **SET TIMER** to desired **TIME OF INTERVAL**.
3. **PRESS SS** key to **BEGIN TIMER** operation.
4. Once set time has elapsed, the monitor will sound 3 short beeps.
Upper line of TIMER SCREEN will automatically **RESET** to **PRE-PROGRAMMED TIME**.
5. **PRESS SS** to start timing another interval.

NOTE: You can reset the timer any time by **PRESSING & HOLDING** the **SS** key.



OPERATING THE WATCH

KCAL MODE

Your monitor will calculate calories used during your workout. Fat Burn mode estimates body fat burned during exercise. This mode is useful when comparing exercise volume of different fitness activities.

In KCAL mode, you can select **CALORIES DISPLAY** or **FAT BURN DISPLAY** by **PRESSING & HOLDING** the **MODE** key.

NOTE: You must activate the Chronograph to record data in KCAL mode.



DISPLAY: Upper line displays **CALORIES USED** or **BODY FAT BURNED** in pounds. Lower line displays **TIME OF DAY**.



CARE AND MAINTENANCE

CARE OF THE WRIST UNIT

Your monitor should be protected from shocks, extreme heat and extended exposure to direct sunlight. As the owner of the product you should only perform service procedures related to the changing of the battery as shown in this manual. You should NEVER attempt to disassemble or otherwise service your watch. When not in use, your watch should be stored in a clean, dry area at room temperature.

If your monitor gets dirty it should be carefully wiped clean using a moist cloth. Care should be taken when cleaning the lens not to rub dirt into the surface as it can become scratched and hard to read.



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CARE AND MAINTENANCE

CHANGING BATTERIES IN THE WATCH

This monitor uses a common CR2032 3v Lithium battery in both the watch and heart rate transmitter. These batteries are commonly available at camera, bicycle, electronics and drug stores. Normal battery life for the watch is approximately 1 yr.

NOTE: Heavy use of the Backlight system may significantly reduce battery life.

A blank display or inaccurate heart rate readings are indications that the battery is getting weak and should be replaced.

1. Using a coin that closely fits the slot in the battery door located on the back of the watch, turn the battery door counter clockwise until the door comes free of the watch.
2. Take care not to damage the O-ring seal for the battery compartment and carefully remove the old battery.
3. Place a fresh battery in the battery compartment with the positive (+) side facing up.



4. With the O-ring in the proper position, place the battery door over the opening and tighten it down by using a coin and turning in a clockwise direction.
5. If the O-ring has been damaged, replace it before reinstalling the battery door. Most jewelers and watch shops should have replacement O-ring seals.

NOTE: Extreme care should be taken when replacing the battery to ensure the unit remains fully water resistant. Failure to properly replace the battery and correctly seal the unit may cause the unit to become damaged and may void the warranty.

Lithium batteries of the type used in this watch are extremely sensitive to improper storage. It is our experience that many of the batteries being sold as new have been stored improperly and are already dead or nearly dead when purchased. If you replace the battery in your watch and it does not become functional, do not assume there is something wrong with the watch. Try another battery and see if that solves things, most of the time it will.

SPECIFICATIONS AND RANGES

FUNCTIONAL SPECIFICATIONS AND RANGES

GENERAL

Operational Temperature -10C to +50C/ 14F to 120F

Water Resistance 3 ATM

Watch Battery CR 2032 3v Lithium

Heart Rate Transmitter Battery CR 2032 3v Lithium

Auto Calendar 2004-2054

Time of Day – 12 or 24-hr. formats with 1-second resolution

Daily Alarm – 24 hours with 1-minute resolution

Age display – 10-99 years

Weight display – 44-499 lbs. (20-230 kg.)

HEART RATE MONITOR

Range 40-240 Beats per Minute

Resolution 1 Beat per Minute

CHRONOGRAPH

Range 24 hours

26-Lap capacity

Resolution 0.1 second for first hour; 1.0 second for hours 2-23

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TROUBLESHOOTING

It has been our experience that the majority of the problems are related to dead or dying batteries.

While the estimated life of a fresh battery in the unit is approximately one year, this can be shortened considerably if the backlight feature of the unit is used extensively. Whenever you are experiencing issues related to the function of the unit it is recommended that you install a fresh battery as a first course of action, especially if it has been more than a half a year since the last time the battery was replaced.

BE AWARE: Lithium batteries of the type used in this watch are very susceptible to improper storage. Many times, batteries purchased as new are dead or weak before they are purchased. Do not assume that batteries in stores are good. If you try a new battery and problems persist, please try a second battery from another source, just to be certain.

If the battery on the watch unit of the heart rate monitor is failing it may show itself in several ways. Indications of a weak battery are:

1. A fading or blank display. Also if the display goes blank when the backlight is operated and then comes back on when the backlight system turns off.
2. Inaccurate readings from the heart rate systems.
3. Reduced heart rate system reception distance.

The display of your watch may "freeze" due to static electricity or battery replacement. If this occurs, remove the battery and re-insert it. This will erase the data in the memory and reset the watch to factory settings.

HRT MAX Heart Rate Monitor



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