

ENDURO

TRAIL RUNNING WRISTWARE



mini



TECHTRAIL

INTRODUCTION

Congratulations on your purchase of **ENDURO SERIES OUTDOOR WRIST INSTRUMENT**. These products represent the state-of-the-art in recreational watches.

Please keep in mind, your watch is a sensitive technical instrument. With proper care and maintenance, it will last for many years. However, improper care and handling can cause the various sensors to be damaged and to stop functioning.

This manual is prepared in easy-to-read sections to familiarize you with setting and operating the watch's functions. Please read all sections of this manual carefully and become fully familiar with the operation of the watch before using it in the field.

Proper setup and operation will greatly enhance the watches usefulness and your enjoyment.

WARNINGS AND CAUTIONS

WARNING: Before starting any exercise program or performing any vigorous physical activity, we strongly suggest you visit your doctor for a complete physical and to discuss your plans.

CAUTION: Your watch is designed to be water resistant to a static pressure of 5 ATM and can be worn while showering and light swimming. However, we recommend that extensive use of the unit in the water be avoided whenever possible.

CAUTION: Care should be taken not to press any keys while the unit is wet or submerged as this can force moisture past the key seals and damage the unit.

TABLE OF CONTENTS

HOW TO USE THIS MANUAL	5
CARE & MAINTENANCE	6
REPLACING THE WATCH BATTERY	7
RESETTING THE WATCH	8
DISPLAY SYMBOLS AND THEIR MEANINGS	9
KEYS AND THEIR FUNCTIONS	11
MODES OF OPERATION	13
SETTING THE WATCH FUNCTIONS	14
EL/BACKLIGHT SYSTEM	14
VIEW TIME ZONE 1 / TIME ZONE 2	15
SETTING TIME/DATE	16
SETTING THE CHRONOGRAPH	18
SETTING THE TIMERS	19
SETTING DAILY ALARMS	22

TABLE OF CONTENTS

OPERATING THE WATCH	24
OPERATING THE CHRONOGRAPH	24
CHRONOGRAPH DATA REVIEW MEMORY	25
REVIEWING RUNS/WORKOUTS	26
OPERATING THE COUNTDOWN TIMERS	27
FUNCTIONAL SPECIFICATIONS AND RANGES	28
TROUBLE SHOOTING BASIC	29

HOW TO USE THIS MANUAL

Enduro watches 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 **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 watch itself is an important part of this manual as it prompts you through its operation.

CARE & MAINTENANCE

Your Enduro watch should be protected from shocks, extreme heat and extended exposure to direct sunlight. You should only perform service procedures related to the changing of the battery as shown in this manual. **NEVER** attempt to disassemble. Store your watch in a clean, dry area at room temperature.

Clean your watch 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.

REPLACING THE WATCH BATTERY

The Enduro watches use a common CR1632 3v Lithium battery. Normal battery life is approximately 1yr.

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

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

1. Remove battery door using a coin.
2. Carefully remove the old battery. Do not damage the O-ring seal.
3. Place a fresh battery in the battery compartment with the positive (+) side facing up.
4. Replace battery door using a coin.
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






RESETTING THE WATCH

To reset the watch back to its default values **PRESS** the **MODE**, **SET/CLEAR**, **START/LAP** and **STOP/NEXT** keys down at the same time. The display will light up showing all segments followed by a sequence of screens showing various numbers. The watch will then automatically change to the time of day screen at 12 o'clock on the first of January.

Resetting the watch will clear any information stored in the watch. This should be done only as a last resort.





DISPLAY SYMBOLS

symbol	description	what it means
	"AUTO-EL" BACKLIGHT	Auto-El Backlight is active when displayed
	CHRONOGRAPH	Chronograph is active when displayed
	TIMER	Timer is active when displayed
	HOURLY CHIME	Hourly chime is active when displayed
	ALARM ON	Alarm is active when displayed

MODE SYMBOLS

symbol	description	what it means
SPL	SPLIT INDICATOR	Displays when Chronograph is running and Lap Detail in Chronograph memory
LAP	LAP INDICATOR	Displays when Chronograph is running and Lap Detail in Chronograph memory
STOP	CHRONO STOPPED	Displays when Chronograph is stopped
PM	PM INDICATOR	Indicates PM Time
AM	AM INDICATOR	Indicates AM Time
T₂	TIME ZONE 2	Indicates Time Zone 2 on display

BATTERY SYMBOLS

symbol	battery status	what it means
none	GOOD	Battery is in good condition.
	MEDIUM	Battery is half full.
	LOW	Battery needs to be replaced

KEYS AND THEIR FUNCTIONS

The Enduro has 5 individual keys. Each key has several functions. The drawing identifies the keys and their names as used in this manual.



KEYS AND THEIR FUNCTIONS

MODE KEY

- Advances display through the various operational modes
- Selects variable in setting mode

SET / CLEAR KEY

- Enter/Exit setting sequence for each function
- Clear Chronograph and memories

START / LAP KEY

- View/Select Time 1 / Time 2 in Time mode
- Increases variable in Setting sequence
- Start/Lap/Split action in Chronograph mode
- Starts recall and scrolls through information in Memory mode
- Starts Timer(s)
- Turns Daily Alarm On/Off
- Selects Key Beep On/Off in Time setting sequence

STOP / NEXT KEY

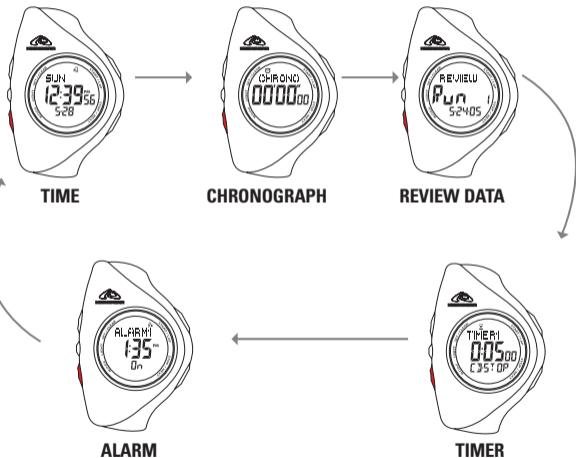
- Stops Chronograph
- Stores Chronograph data to memory
- Decreases variable in Setting sequence
- Advances to next data file in Review mode
- Stops Timer
- Scrolls through Daily Alarms
- Selects Key Beep On/Off in Time setting sequence

EL / LIGHT KEY

- Activates EL/Backlight
- Hold 3 Sec. Activates/deactivates Automatic Backlight

ENDURO MAIN DISPLAY MODES

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



EL/BACKLIGHT SYSTEM

Activate the **BACKLIGHT** system at any time by **PRESSING** of the **EL/LIGHT** key. The backlight will remain active for a period of 2 seconds.

AUTO EL/BACKLIGHT

Auto-EL mode automatically illuminates the backlight for 2 seconds whenever any key is pressed. This is convenient when operating the watch at night or in other low light situations.

To activate/deactivate the **AUTO-EL MODE**, **PRESS & HOLD EL/LIGHT** key for 2 seconds. Auto-El status is indicated by  icon in upper center of display.

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



VIEW TIME ZONE 1 / TIME ZONE 2

Your Enduro watch allows you to set two separate time zones. In **TIME MODE**, Time Zone 2 can be viewed by a **PRESSING** the **START/LAP** key. When viewing Time Zone 2, the display will indicate **T2** in the upper left of the display. **PRESS & HOLD** the **START/LAP** key to change primary time zone display.

NOTES FOR SETTING THE WATCH

NOTE: When in setting sequence, the variable being set will blink.

NOTE: When in setting sequence, "+" and "-" icons are displayed whenever it is possible to increase or decrease a variable that is being set.

NOTE: If no key is pressed for 60 seconds while in setting mode, setting mode automatically exits and changes will not be saved.

NOTE: **PRESS SET/CLEAR** key to exit setting sequence.

**SETTING TIME/DATE**

1. Advance to **TIME** screen by **PRESSING** the **MODE** key.
2. **PRESS & HOLD** the **SET/CLEAR** key to enter the setting sequence.
3. Adjust **HOURS** by **PRESSING** the **START/LAP** or **STOP/NEXT** keys.
4. Advance to set **MINUTES** by **PRESSING** the **MODE** key. Adjust by **PRESSING** the **START/LAP** or **STOP/NEXT** keys.
5. Advance to set **SECONDS** by **PRESSING** the **MODE** key. Adjust by **PRESSING** the **START/LAP** or **STOP/NEXT** keys.
6. Advance to set **YEAR** by **PRESSING** the **MODE** key. Adjust by **PRESSING** the **START/LAP** or **STOP/NEXT** keys.

(CONTINUED NEXT PAGE)



SETTING TIME/DATE (CONTINUED)

- Advance to set **MONTH** by **PRESSING** the **MODE** key. Adjust by **PRESSING** the **START/LAP** or **STOP/NEXT** keys.
- Advance to set **DAY** by **PRESSING** the **MODE** key. Adjust by **PRESSING** the **START/LAP** or **STOP/NEXT** keys.
- Advance to select **12 OR 24-HOUR** mode. Select by **PRESSING** the **START/LAP** or **STOP/NEXT** keys.
- Advance to set **HOURLY CHIME** by **PRESSING** the **MODE** Key. Turn **ON/OFF** by **PRESSING** the **START/LAP** or **STOP/NEXT** keys.
- Advance to set **KEY BEEP** by **PRESSING** the **MODE** Key. Turn **ON/OFF** by **PRESSING** the **START/LAP** or **STOP/NEXT** keys.
- PRESS** the **SET/CLEAR** 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** the **SET/CLEAR** key.



SETTING THE CHRONOGRAPH

Enduro watches are equipped with a 24-hour, 100-lap Chronograph with 1/100-second resolution. The Chronograph has 4 viewing options.

In Chronograph mode:

NOTE: If there is information in the Chronograph, you must first **RESET** the Chronograph by **PRESSING** the **SET/CLEAR** key or **SAVE** to memory by **PRESSING** the **STOP/NEXT** key.

- PRESS & HOLD** the **SET/CLEAR** key to enter the setting sequence.
- Select **VIEWING OPTION** by **PRESSING** the **START/LAP** or **STOP/NEXT** keys.
- PRESS SET/CLEAR** key to return to Chronograph mode.



SETTING THE TIMERS

Enduro watches are equipped with 3 independent 24-hour Timers with enhanced functionality. In **TIMER MODE**, you can scroll through Timers 1 through 3 by **PRESSING** the **STOP/NEXT** key.

Timer options are:

CD-STOP: Counts down, then stops at 00:00:00.

CD-REPEAT: Counts down, then automatically starts to count down again.

CD-UP: Counts down, then automatically begins counting up. Example: you can program a 10-minute warm up followed by a 45-minute workout. The timer counts down 10 minutes, then begins timing like a regular chronograph.

TRAIN: Trainer mode has up to 9 settable segments. The length of each segment can be set independently. Each segment counts down to 00:00:00 and automatically advances to the next segment which begins counting down immediately in a continuous loop.



SETTING THE TIMERS (CONTINUED)

In Timer mode:

1. Select **TIMER 1, 2** or **3** by **PRESSING** the **STOP/NEXT** key.
2. **PRESS & HOLD** the **SET/CLEAR** key to enter the setting sequence.
3. Select **TIMER MODE** (**CD-STOP**, **CD-REPEAT**, **CD-UP** or **TRAIN**) by **PRESSING** the **START/LAP** or **STOP/NEXT** keys.
4. Advance to set **HOURS** by **PRESSING** the **MODE** key. Adjust by **PRESSING** the **START/LAP** or **STOP/NEXT** keys.
5. Advance to set **MINUTES** by **PRESSING** the **MODE** key. Adjust by **PRESSING** the **START/LAP** or **STOP/NEXT** keys.
6. Advance to set **SECONDS** by **PRESSING** the **MODE** key. Adjust by **PRESSING** the **START/LAP** or **STOP/NEXT** keys.
7. **PRESS SET/CLEAR** to exit the setting sequence.

(CONTINUED NEXT PAGE)



SETTING THE TIMERS (CONTINUED)

If **TRAIN** mode is selected:

1. **Program Segment 1:** Advance to set **HOURS** by **PRESSING** the **MODE** key. Adjust by **PRESSING** the **START/LAP** or **STOP/NEXT** keys.
2. Advance to set **MINUTES** by **PRESSING** the **MODE** key. Adjust by **PRESSING** the **START/LAP** or **STOP/NEXT** keys.
3. Advance to set **SECONDS** by **PRESSING** the **MODE** key. Adjust by **PRESSING** the **START/LAP** or **STOP/NEXT** keys.
4. Advance to **PROGRAM NEXT SEGMENT** by **PRESSING** the **MODE** key. Repeat programming sequence (up to 9 individual segments).
5. **PRESS SET/CLEAR** to exit the setting sequence at any time.



SETTING DAILY ALARMS

The Enduro watches are equipped with three individual daily alarms which can be set to the hour and minute. Alarms are active for current Time Zone selected.

SELECTING ALARM 1, 2 OR 3

Scroll through **ALARM 1, 2** or **3** (indicated in the upper line of the display) by **PRESSING** the **STOP/NEXT** key.

TURNING AN ALARM ON/OFF

In Alarm mode:

1. Select **ALARM 1, 2** or **3** by **PRESSING** the **STOP/NEXT** key.
2. Toggle between **ON** and **OFF** by **PRESSING** the **START/LAP** key.

TO SET AN ALARM

In Alarm mode:

1. Select **ALARM 1, 2** or **3** by **PRESSING** the **STOP/NEXT** key.
2. **PRESS & HOLD** the **SET/CLEAR** key to enter the setting sequence.
3. Adjust **HOURS** by **PRESSING** the **START/LAP** or **STOP/NEXT** keys.
4. Advance to set **MINUTES** by **PRESSING** the **MODE** key. Adjust by **PRESSING** the **START/LAP** or **STOP/NEXT** keys.
5. **PRESS SET/CLEAR** to exit the setting sequence.



OPERATING THE CHRONOGRAPH

Enduro watches are equipped with a 24-hour, 100-lap Chronograph with 1/100-second resolution.

In Chronograph mode:

1. **PRESS** the **START/LAP** key to **BEGIN TIMING**.
2. To **ACTIVATE A LAP**, **PRESS** the **START/LAP** key.
3. To **STOP TIMING**, **PRESS** the **STOP/NEXT** key.
4. To **RESUME TIMING**, **PRESS** the **START/LAP** key.
5. To **SAVE CHRONOGRAPH DATA**, when chronograph is stopped, **PRESS & HOLD** the **STOP/NEXT** key. File will be saved to memory and chronograph will reset to 00:00:00.
6. To **RESET CHRONOGRAPH** (without saving data), **PRESS & HOLD** the **SET/CLEAR** key.



CHRONOGRAPH DATA REVIEW MEMORY

Enduro watches have a memory that allows you to store up to 20 runs/workouts. Information recorded includes time and split for each lap, best (fastest) lap, average lap time and total time for workout. When you store a Run/Workout it is captured by the Chronograph Data Review memory.

MANAGING THE CHRONOGRAPH DATA LOG

Runs are stored in chronological order (earliest to latest). The **center line** of the display will indicate the number **1-20** and the **lower line** will display the **DATE** the run/workout was recorded.

(CONTINUED NEXT PAGE)

REVIEWING RUNS/WORKOUTS

In Review mode:

1. Scroll through the **STORED RUNS** by **PRESSING** the **STOP/NEXT** key.
2. Select **FILE TO REVIEW** by **PRESSING** the **START/LAP** key.
3. View **LAP, SPLIT, BEST, AVERAGE** and **TOTAL TIMES** by **PRESSING** the **START/NEXT** key.
4. **PRESS** the **STOP/NEXT** key to exit file review and return to Review directory.
5. To **ERASE** a stored file, **PRESS & HOLD** the **SET/CLEAR** key. The display will indicate file has been erased.
6. To **CLEAR** all files in memory, **PRESS & HOLD** the **SET/CLEAR** key until display indicates **"ALL ERASED"**.



OPERATING THE COUNTDOWN TIMERS

Enduro watches are equipped with 3 independent 24-hour Timers with enhanced functionality. In Timer mode, you can scroll through **TIMERS 1** through **3** by **PRESSING** the **STOP/NEXT** key.

In Timer mode:

1. Select **TIMER 1, 2,** or **3** by **PRESSING** the **STOP/NEXT** key. The **TIMER FORMAT** is indicated on the **bottom display line (CD-STOP, CD-REPT, CD-UP, or TRAIN)**.
2. **PRESS START/LAP** to **START TIMER**.
3. **PRESS STOP/NEXT** to **STOP TIMER**.
4. When timer is stopped, **PRESS SET/CLEAR** to **RESET TIMER**.

**GENERAL**

Operational Temperature -10°C to +50°C/ 14°F to 120°F
 50 Meter Water Resistant
 Watch Battery CR 1632 3v Lithium
 EL Backlight System with Auto EL-Feature
 Approximate battery life: 1 year

WATCH

Auto Calendar 2006-2054
 Time of Day – 12 or 24-hr. formats with 1-second resolution
 Daily Alarm – 24 hours with 1-minute resolution

CHRONOGRAPH

24 Hour Chrono 1/100 second resolution
 100 Laps with up to 20 sessions of Workout Memory
 100 Split Time with Workout Memory / 20 sessions
 Training Log with Best/Average Lap and Total Training Time
 Split/Lap Display user selectable

TIMER

3 Independent Timers
 9 interval Timers
 Maximum setting time 23h 59m 59s

TROUBLE SHOOTING BASIC

Your Enduro watch is a very sensitive and sophisticated instrument. If properly cared for it should last and remain accurate for many years. However, from time to time problems may occur. It has been our experience that the majority of the problems seen by consumers with products such as the Enduro are related to dead or dying batteries.

While the estimated life of a fresh battery in the unit is approximately 1 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.

TROUBLE SHOOTING BASIC

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

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.

If the display goes blank when the EL system is operated and then comes back on when the EL system turns off.

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.

Enduro watches are equipped with a display which allow them to be used in a wide variety of environments. However, if the unit is used in extreme cold (<32°F or 1°C) the function of the display may be slower than normal. If exposed to extreme heat or cold, the display may also darken. The display should return to normal once the temperature returns to normal levels.

ENDURO

TRAIL RUNNING WRISTWARE



mini

HIGHGEAR USA/TECHTRAIL INC.

web: www.highgear.com
www.techtrail.com

email: contacts@highgear.com

© 2006 HighGear USA/TechTrail, Inc.
All Rights Reserved.

