

ACUMEN™

Hydration Watch

Hydra-Alert™ Jr.



Features:

- Fluid Check™
- Build-in Sensor for Detecting Temperature and Humidity
- Heat Index
- Calorie Counter
- Stopwatch

CONTENTS

- 1. Product Introduction.....2**
- 1.1 Features.....3
- 1.2 Package Contents.....3

- 2. Using Your Hydra Alert.....4**
- 2.1 Clock Mode.....5
- 2.2 Fluid Loss Mode.....6
- 2.3 TMP/HUM Mode.....6
- 2.4 Heat Index Mode.....6
- 2.5 Stopwatch Mode.....7
- 2.6 Free Training Mode.....7
- 2.7 Exercise File Mode.....9
- 2.8 Set Mode.....10
- 2.9 Replacing the Battery.....12

- 3. Technical Reference.....13**
- 3.1 Getting to Know Heat Index..... 14
- 3.2 Determining Your MET Parameter.....15
- 3.3 Body Fluid Check™ Monitoring Guidelines and Tips.....17
- 3.4 Specifications.....17
- 3.5 Technical Display Guide.....18

- 4. Precautions, Warranty, Service and Repair.....19**
- 4.1 General Precautions.....20
- 4.2 Warranty.....20
- 4.3 Service & Repair.....21

Product Introduction



1.1 Features

- TRAINING
 - Free Training
 - Stopwatch for Elapsed Exercise Time
- DEHYDRATION & FITNESS
 - Fluid Check™ for Safeguarding Against Dehydration
 - Temperature and Humidity Detection
 - Heat Index
 - Programmable Exercise Type
- STANDARD FEATURES
 - Daily Alarm
 - Clock / Date / Day Display
 - NiteLite with SmartLite
 - Scratch Resistant Crystal Lens
 - Water Resistant to 30 Meters

1.2 Package Contents

- A. Hydra-Alert™ JR Watch
- B. Instruction Manual



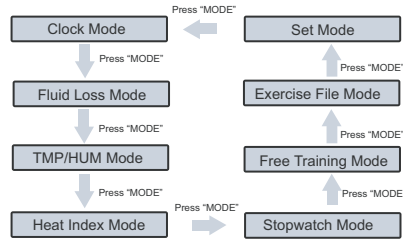
USING YOUR HYDRA-ALERT

2

USING YOUR HYDRA-ALERT

Overview

The Normal Modes in **Hydra-Alert™ JR** can be toggled in the following sequence by pressing "**MODE**".



2.1 Clock Mode

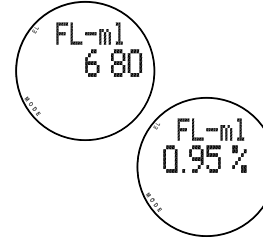


- Press "**EL**" to activate the NiteLite
- Press & Hold "⊙" to Turn On / Off Daily Alarm
- Press "**MODE**" to advance to **Fluid Loss Mode**.

Note: 📢 => Daily Alarm ⊙ => Turn On / Off Daily Alarm immediately

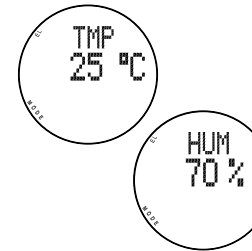
The Daily Alarm produces a 1-minute double short beep. (Press any button to stop it)

2.2 Fluid Loss Mode



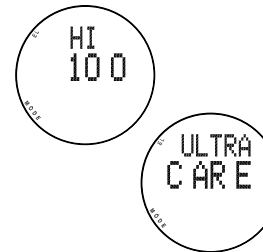
- Press "**EL**" to activate the NiteLite.
- Press "**MODE**" to advance to **TEM/HUM Mode**.

2.3 TEM/HUM Mode



- Press "**EL**" to activate the NiteLite.
- Press "**MODE**" to advance to **Heat Index Mode**.

2.4 Heat Index Mode




- Press "**EL**" to activate the NiteLite.
- Press "**MODE**" to advance to **Stopwatch Mode**.

Note: When the Heat Index is shown and its current value is at a very high level, the watch will alert you by switching between the Heat Index values and warning messages. The warning messages include **Care, Ultra Care, Danger and Ultra Danger** (Refer to page 8 for additional details).


2.5 Stopwatch Mode

Press "**STR**" to start the stopwatch.

	<ul style="list-style-type: none"> • Press "EL" to activate the NiteLite. • Press "STR" to Start the stopwatch • Press "MODE" to advance to Free Training Mode.
<p>When the stopwatch is running</p>	<ul style="list-style-type: none"> • Press "EL" to activate the NiteLite. • Press "STOP" to stop the stopwatch. • Press "MODE" to Advance to Free Training Mode.
<p>When the stopwatch is stopped</p>	<ul style="list-style-type: none"> • Press "EL" to activate the NiteLite. • Press "STR" to Start the stopwatch • Press "CL" to reset the stopwatch and return to Stopwatch Mode. • Press "MODE" to advance to Free Training Mode.

2.6 Free Training Mode

Press "**STR**" to start Free Training and enter the Total Time of Free Training.


	<ul style="list-style-type: none"> • Press "EL" to activate the NiteLite. • Press "STR" to start Free Training and enter Total Time. • Press "MODE" to advance to Exercise File Mode.
---	--

Note: Hydra-Alert™JR has only Free Training without Lap Training.

In this Mode, you can view the following information:

<p>Total time</p> 	<ul style="list-style-type: none"> • Press "EL" to activate the NiteLite • Press "STOP" to stop the Stopwatch. • Press "NXT" to advance to next item.
<p>Fluid Loss</p> 	
	
<p>Calorie</p> 	

Store Data

	<ul style="list-style-type: none"> • Press "EL" to activate the NiteLite. • Press "←" to store data and exit to Free Training Mode. • Press "EXIT" if data is not to be stored and exit to Free Training Mode.
---	--

2.7 Exercise File Mode



- Press "**EL**" to activate the NiteLite.
- Press "**MODE**" to advance to **Set Mode**.

Press "**←**" to view the recorded exercise information.



- Press "**EL**" to activate the NiteLite.
- Press "**←**" to view recorded information.
- Press "**MODE**" to advance to **Set Mode**.
- Press & hold "**CL**" to reset the file and return to **Exercise File Mode**.

Recorded Exercise Information

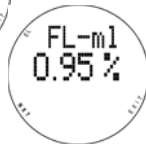
File



Total time



Fluid Loss



- Press "**EL**" to activate the NiteLite
- Press "**NXT**" to scroll the recorded exercise information.
- Press "**EXIT**" to return to **Exercise File Mode**.

9

Calorie



- Press "**EL**" to activate the NiteLite
- Press "**NXT**" to scroll the recorded exercise information.
- Press "**EXIT**" to return to **Exercise File Mode**.

2.8 Set Mode

The Set Mode includes **Time Setup**, **Alarm Setup** and **MET Setup**.

In **Set Mode**, press "**←**" to start settings beginning with **Time Setup**.

- Press "**EL**" to activate the NiteLite.
- Press "**←**" to enter **Time Setup**.
- Press "**MODE**" to return to **Clock Mode**.

In each setup section, press "**←**" to start setting

Time Setup	<ul style="list-style-type: none"> • Press "EL" to activate the NiteLite. • Press "←" to start setting. • Press "NXT" to toggle between setup sections. • Press "EXIT" to return to Set Mode.
Alarm Setup	
MET Setup	

2.8.1 Time Setup

Setting Items	Press "+ / " - "	Press "NXT"	Press "EXIT"
12/24 Format	Set 12 /24 hour format	Advance to next setting item.	Return to Time Setup .
Hour	• Increase / Decrease the Value		
Minutes			
Year	• Press & hold to increase the speed at which the values adjust		
Month			
Date			

10

Note: In 12 hour format, Time display without PM icon means AM.

Setting Items	Press "+ / " - "	Press"NXT"	Press"EXIT"
SmartLite	Set the SmartLite to ON/OFF	Advance to next setting item.	Return to Time Setup.
SmartLite (From)	<ul style="list-style-type: none"> • Increase / Decrease the Value • Press & hold to increase the speed at which the values adjust 		
SmartLite (To)			

2.8.2 Alarm Setup

Setting Items	Press "+ / " - "	Press"NXT"	Press"EXIT"
Hour	<ul style="list-style-type: none"> • Increase / Decrease the Value • Press & hold to increase the speed at which the values adjust 	Advance to next setting item.	Return to Alarm Setup.
Minutes			
Alarm ON/OFF	Set the Alarm to ON/OFF		

Note: You can also turn the Daily Alarm On / Off swiftly by Pressing and Holding "⊙" in Clock Mode.

2.8.3 MET Setup

Setting Items	Press "+ / " - "	Press"NXT"	Press"EXIT"
Unit	Select Metric or US	Advance to next setting item.	Return to MET Setup.
Weight Value	<ul style="list-style-type: none"> • Increase / Decrease the Value • Press & hold to increase the speed at which the values adjust 		
Exercise Type	Select exercise type or "MET"		
Exercise Intensity	Select exercise intensity		
MET Parameter	<ul style="list-style-type: none"> • Increase/Decrease MET Value • Press & hold to increase the speed at which the values adjust 		

Note 1:

- If you choose one kind of exercise, press "NXT" to return to **MET Setup Mode** after setting the **Exercise Intensity.**
- If you choose "MET" in Exercise Type, press "NXT" to go to **MET Parameter.**

Note 2:

Under all normal modes, if there is no signal for 3 minutes, the unit will return to Clock Mode.

2.9 Replacing the Battery

Hydra-Alert™ Jr. uses Lithium CR2032 battery.

When the watch displays "**LOW BATT**" (as in the figure below), the battery in your watch needs to be replaced. To maintain its water resistance, professional battery replacement service is advised. Improper battery replacement or service will void the warranty. In the case of self replacement, removal of the old battery should be documented in detail to ensure proper replacement of new battery, position of contacts, and O-ring line-up. To maintain the watch's water resistance, it is a good idea to smear a small drop of silicone lubricant spray on the O-ring.



Note: After the first low battery warning comes on for 15 minutes, the **EL, Humidity & Temperature** features will be turned off to conserve the battery power.

Technical Reference

3

3.1 Getting to know Heat Index

The Heat Index combines the effects of heat and humidity. When heat and humidity combine to reduce the amount of evaporation of sweat from the body, outdoor exercise becomes dangerous even for those in good physical condition. Key rules for coping with heat are to drink plenty of water to avoid dehydration, slow down, and cool off when feeling fatigued, headache, a high pulse rate or shallow breathing. Overheating can cause serious, even life-threatening conditions such as heat stroke. The **Apparent Temperature**, which combines the temperature and relative humidity, is a guide to the danger. Below is the **Heat Stress Index** based on the **Apparent Temperature**.

Apparent Temperature Heat Stress Index

Category	Apparent Temperature	Dangers
Care	80-90°F	Exercise more fatiguing than usual
Ultra Care	90-105°F	Heat cramps, exhaustion possible
Danger	105-130°F	Heat exhaustion likely
Ultra Danger	Greater than 130°F	Heat stroke imminent

Effects of Heat Illnesses

Heat Cramps:
 Exercising in hot weather can lead to muscle cramps, especially in the legs, because of brief imbalances in body salts. Cramps become less frequent as a person becomes used to the heat. As with heat cramps, the cure is to take it easy.

Heat Syncope or Fainting:
 Anyone not used to exercising in the heat can experience a quick drop in blood pressure that can lead to fainting.

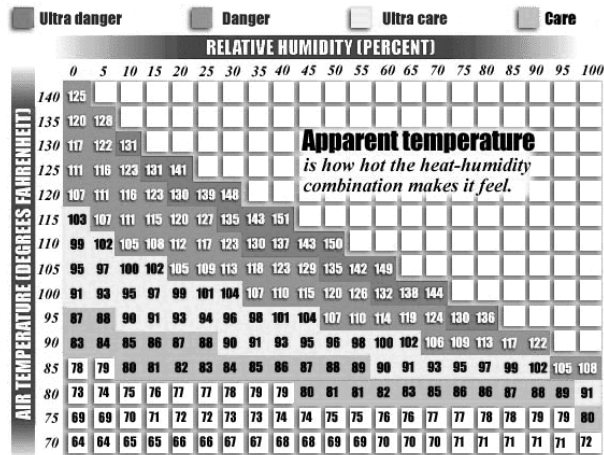
Heat Exhaustion:
 The loss of fluid and salt through perspiration and improper replacement of them can lead to dizziness and weakness. Body temperature might rise, but not above 102 degrees. In some cases, victims especially the elderly should be hospitalized. Heat exhaustion is more likely to occur after continuous exposure to excessive heat waves. The best prevention from heat exhaustion is to drink plenty of water and minimize physical activity in the heat. Salt tablets should not be taken without consulting a physician.

Heatstroke:

In some cases, extreme heat can upset the body's thermostat causing body temperature to rise to 105 degrees or higher. Heat stroke symptoms include lethargy, confusion, and unconsciousness. Suspicion of heatstroke also requires immediate medical attention since heatstroke can result in death.

The importance of the **Heat Index** is to show how hot a particular combination of heat and humidity feels. The Heat Index in the **Hydra-Alert™** is a report of the latest weather conditions based on the current temperature and the relative humidity. Please refer to the following Heat Index Chart to learn about the **Apparent Temperature** and to minimize the possibility of getting heat stroke.

How Temperature and Humidity Combine to Make If Feel Hotter



3.2 Determining Your MET Parameter

If a specific activity is not available in your watch, choose a similar exercise type and use the corresponding parameter from the table below to set your watch. (Please refer to page 11 to set the MET Parameter).

Table of MET Parameter

Exercise	Intensity Level		
	Light	Medium	High
AEROBICS	6	7,8	9

BASKETBALL	7	8, 9	10 - 12
BOWLING	2	3	4
CYCLING	3 - 5	6 - 8	9,10
DANCING	3	4 - 6	7,8
FOOTBALL	6,7	8	9,10
GOLF	4,5	6	7
HIKING	3 - 5	5 - 8	9 - 11
JUMPING ROPE	8	9,10	11,12

Exercise	Intensity Level		
	Light	Medium	High
JOGGING	8	10	12
RUNNING	8 - 10	11-15	16,17
SKATING(ice/inline)	5	6,7	8,9
SKIING	6,7	8 - 10	11,12
SKIING(Cross-Country)	5	6,7	8
SWIMMING	4	5 - 7	8 - 10
STAIRS	4	5,6	7,8
TENNIS	4,5	6,7	8,9
VOLLEYBALL	3	4,5	6
WALKING	3	4 - 6	7

3.3 Body Fluid Check™ Monitoring Guides and Tips

The ACUMEN **Hydra-Alert™** provides an indication of the level of dehydration. The purpose of the dehydration reading is to remind individuals to replenish the body with fluids during exercise.

It takes the human body 12 to 24 hours to replace fluids from heat and exercise. To prevent the harmful effect of excessive dehydration it is necessary to drink before you become thirsty.

The thirst mechanism is not precise in humans. An individual can lose fluids equaling up to 3% of their body weight before a person feels that they need to quench their thirst.

Strength and endurance are reduced by 10-15% after just a 2% loss of body weight through dehydration.

Most people need more than eight glasses (8 ounces) of water per day. Water intake each day needs to be half your body weight in ounces. Do not drink more than 32 ounces at any one time. Water intake should be divided throughout the entire day.

If the exercise period is under 60 to 90 minutes, water intake is always appropriate. If the exercise period is more than 60 to 90 minutes, a sports drink offers an energy advantage that can enhance stamina and endurance.

Cardiac drift occurs because dehydration causes a drop in blood volume causing less blood to be pumped with each heartbeat. The heart rate increases 7 beats per minute for each 1% loss in body weight due to dehydration.

The keys to Proper Hydration:

- Drink on schedule, rather than relying on thirst
- Drink during training as well as competition
- Drink cold water to increase gastric emptying

The American College of Sports Medicine on Exercise and Fluid Replacement (ACSM, 1996) states that adequate fluid replacement helps maintain hydration and, therefore promotes the health, safety, and optimal physical performance of individuals participating in regular physical activity.

3.4 Specifications

- **Shock Resistant**

Standard shock resistance

- **Water Resistant**

98 feet (or 30 meters) Not intended for diving.

- **Operating Temperature**

32 °F to 122 °F (0 °C to 50 °C)

- **Battery Type**

Lithium CR2032

3.5 Technical Display Guide

Display Items	Default Setting	Range
Time	12:00:00 AM	12/24 hr. Clock
Time Alarm	Off, 12:00 AM	ON/OFF, DAILY
Date	01/01/2000	To 12/31/2099
Stopwatch	00:00:00	24:00:00
Weight Unit		KG/LB
Weight KG/Lbs	75.0 KG/150 Lbs	30~250KG/50~500 Lbs
Humidity		1 ~ 99 %
Temperature		14 ~ 140°F / -10 ~ 60°C
Fluid Loss	OFF	0~999.9 Ounce/0~99.99% or 0~99999 ml/0~99.99%
Calorie Display	0	0~9999 Kcal. (rolls over at 10000)
Heat Index		64-151
MET Parameter	5	2~20
Exercise Type	Aerobics	19 Exercise Types
SmartLite	OFF	ON/OFF

4

4.1 General Precautions

- **Do not operate buttons under water**
Although your monitor is water resistant, be sure that you do not operate the buttons under water as pressure can cause them to leak.
- **Dry off watch after use**
Moisture can affect the Temperature and Heat Index reading. Please dry off your watch after use.
- **Global Reset**
If your monitor should ever get stuck or act erratically due to dropping it, static shock or some other unforeseen reason, the Global Reset feature will allow you to reset the unit and return all settings back to their internal defaults. To perform this function, **Press and Hold** all four buttons together for 3 seconds under any mode (display all LCD). The unit will automatically reset and return to initial setting mode.
Caution: Global Reset will RESET ALL FUNCTIONS BACK TO ORIGINAL FACTORY SETTINGS including your Personal Settings.
- **Battery Replacement**
The **Hydra-Alert™ JR** uses a Lithium CR2032 battery.
To maintain the watch's water resistance, professional battery replacement service is advised. Improper battery replacement or service will void the warranty. In the case of self replacement, removal of the old battery should be documented in detail to ensure proper replacement of the new battery, position of contacts, and O-ring line-up. It is a good idea to smear a small drop of silicone lubricant spray on the O-ring.

4.2 Warranty

This product is warranted by **Acumen Inc.** for one year from the date of purchase (with the exception of batteries and elastic chest strap) against defects in workmanship and material. During this one-year period, these defects will be repaired or the product will be replaced by **Acumen Inc.** at its sole discretion without charge. This warranty covers normal consumer usage and does not cover damage which occurs in shipment or failure which results from accident, misuse, abuse, tampering, alteration or disassembling of the product or improper maintenance. This warranty is effective only if the product is purchased and operated in the USA and does not extend to any units which have been used in violation of written instructions furnished by Acumen Inc. or to units which have been altered or modified without authorization of Acumen Inc., or to damage

to products or parts thereof which have had the serial number removed, altered, defected or rendered illegible. The product must be returned to an authorized dealer for service if purchased outside of the USA.

Note: Please return the product to local authorized dealer for service if purchased outside of the USA.

4.3 Service & Repair

Do not attempt to repair your product. Should the product malfunction, please visit our website at www.acumeninc.com for Consumer Customer Service. If the problem cannot be resolved, return the product to the factory for repair. Under no circumstances should you attempt to open the housing and repair the product. Should you do this, your warranty will be voided.

In USA, securely package and return the product pre-paid to:

**Acumen Inc.,
101 A Executive Dr., Suite 100,
Sterling, VA 20166
USA.**

To Return for Service

- a. First visit our website at www.acumeninc.com/returnauthorization.asp to obtain a Return Authorization Number.
- b. Enclose your name, address and phone number.
- c. Enclose the date of purchase (or receipt as a gift).
- d. An description of the malfunction or reason to return.
- e. Seven dollars and fifty cents (\$7.50) Check or Money Order payable to Acumen Inc. for return postage and handling.
- f. To insure prompt "In warranty" service, be sure to include proof of date of purchase.

We recommend you take the necessary precaution of insuring the parcel.

Outside USA, you should contact the local dealer or Acumen distributor in your country for customer service.

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