HRT WATCH

SURESH◎T®

BALLISTIC CALCULATOR BY 5.11

5.11 ⊞
TACTICAL SERIES ®

CONTENTS

SET

PLUS (+)

SCREW DOWN CROWN

MINUS (-)

SELECT

•))) Hourly Chime Icon

◀ Alarm ON Icon

⊕ Shooter Mode Icon

ANALOG FUNCTION :
• ANALOG time (three hands)
• BEZEL time (60 minutes)

DIGITAL FUNCTIONS:
Press SELECT to scroll through the following function displays:
• HOME TIME in 12 or 24 hour format with DAY, DATE, MONTH readout - Auto calendar with 50 years coverage.
• T2 – Second time zone.
• ALARM - 2 alarms for HOME time and T2 time
• CHRONOGRAPH – Stopwatch with 1/100th sec readout.
• TIMER with alarm – Countdown in 1 sec readout from up to 24 hours.

SURESHOT® FUNCTIONS (DIGITAL):
• SURESHOT® Ballistic Calculator
Press SET in any mode to display TARGET RESULT screen
Press SELECT to scroll through fields.

BASIC NAVIGATION

TIME FUNCTIONS

PRESS SET

SURESHOT® FUNCTIONS

HOME TIME

PRESS & HOLD SELECT

DATE

TARGET (RESULTS)

PRESS SELECT

TIME ZONE2

RANGE

PRESS SELECT

ALARM

WIND DIRECTION (1H ~ 12H)

PRESS SELECT

CHRONO

WIND SPEED

PRESS SELECT

TIMER

INCLINATION ANGLE (0° ~ 60°)

PRESS SELECT

PRESS SELECT

PRESS SELECT

PRESS SELECT
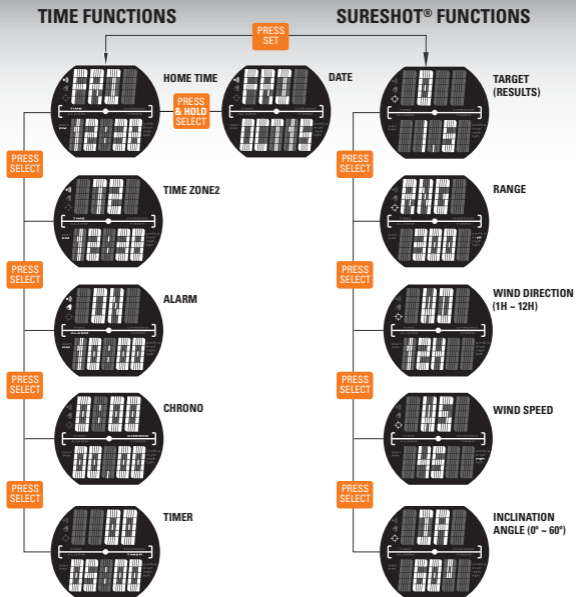
TIME SETTING
1. Make sure your watch is completely dry.
2. Turn the crown counter-clockwise (fig. 1)
3. With crown completely unscrewed it can be pulled out to set your watch (fig. 2).
4. Turn the crown clockwise to move the hands to the correct time.
5. After setting the time, push the crown in and carefully screw the crown in to reseal your watch. Never force the crown (fig. 3).

fig. 1

UNSCREW CROWN

fig. 2

fig. 3

ALIGN THREAD CAREFULLY & SCREW CROWN FULLY BUT CAREFULLY
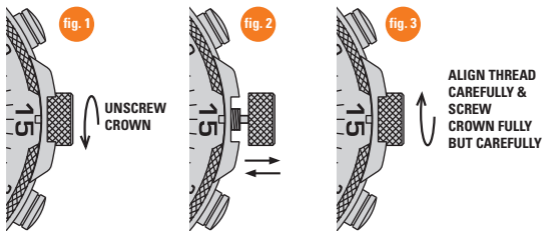
IMPORTANT!

The crown must be fully screwed in for your watch to be water resistant. Never unscrew the crown when your watch is wet or in water.

Your watch is fitted with a uni-directional Bezel Timer. This bezel was originally designed to be used for counting minutes when scuba diving but it can be used as a timer for any purpose.

To set your bezel :
1. Turn your bezel by hand counter-clockwise and align the red marker at 60 with the minute hand (fig 1.)
2. As the minute hand moves, it will count up against the time on the bezel. As long as the bezel is not moved, you can read the elapsed time (up to 60 minutes) by noting the minute hand's position against the bezel. (Example 15 mintues as in fig 2.)

ALIGN

READ

fig. 1
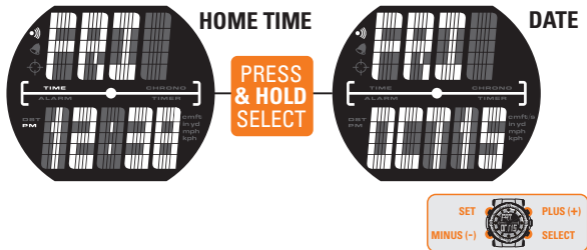
fig. 2

DIGITAL TIME FUNCTIONS

BACK-LIGHT
1. Press PLUS (+) and watch will illuminate for 10 seconds.
2. Press PLUS (+) again to immediately switch off the light.
   (It is advisable to turn off the light whenever possible to conserve
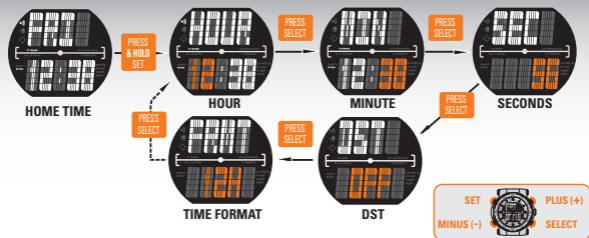   battery life.)

WATCH MODE Screen default:
You may choose to have the main screen in DAY/MONTH/DATE or
DAY/HOME TIME display (for night operations).
In WATCH MODE, press and hold SELECT to toggle between the two
display options.

HOME TIME

DATE

PRESS
& HOLD
SELECT

SET   PLUS (+)
MINUS (–)   SELECT

HOME TIME

HOME TIME — HOUR — MINUTE — SECONDS — DST — TIME FORMAT

PRESS & HOLD SET / PRESS SELECT

SET · PLUS (+) · MINUS (-) · SELECT

SETTING :

1. In WATCH MODE - DAY/HOME TIME display, press and hold SET. Hour digits will flash. (Day/Home time must be selected see page 6).
2. Select the hour by pressing PLUS (+) or MINUS (-).
3. Press SELECT. Minute digits will flash. Select the minute by pressing PLUS (+) or MINUS (-).
4. Press SELECT. Second digits will flash. Press PLUS (+) or MINUS (-) to synchronize the seconds with the analog hand at 0/60.
5. Press SELECT. DST (daylight savings time) digits will flash. Choose your "summertime" preference by pressing PLUS (+) or MINUS (-).
6. Press SELECT. 12 hr/24 hr Format digits will flash. Choose your preferred display by pressing PLUS (+) or MINUS (-).
7. Press and hold SET to leave setting mode.
8. Toggle the hourly chime (•))) on/off by pressing MINUS (-). The hourly chime icon will appear at the left of the day display when chime is activated.

CALENDAR

| DATE MODE | YEAR | MONTH |
| BEEP SETTING | DATE FORMAT | DAY/DATE |
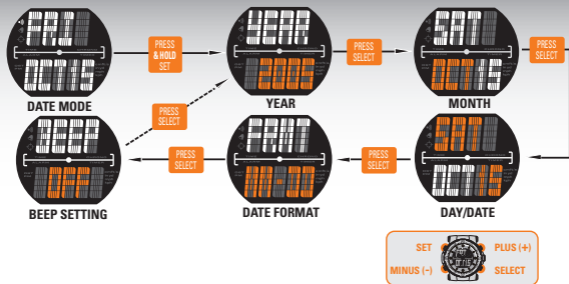
SETTING:

Day/Month/Date display must be selected. (see page 6)

1. In WATCH MODE (DAY/MONTH/DATE) display, press and hold SET. Year digits will flash.
2. Select the year by pressing PLUS (+) or MINUS (-).
3. Press SELECT. Month digits will flash. Select the month by pressing PLUS (+) or MINUS (-).
4. Press SELECT. Date digits will flash. Select the date by pressing PLUS (+) or MINUS (-). (Correct Day will automatically be selected).
5. Press SELECT. Format digits will flash. Choose your preferred display by pressing PLUS (+) or MINUS (-).
6. Press SELECT. BEEP digits will flash. This fuction allows you to select a beep to sound with every button push (default is off). Choose your preference by pressing PLUS (+) or MINUS (-).
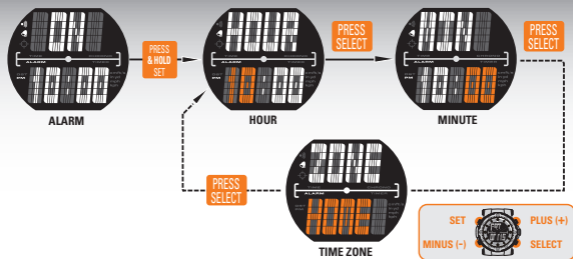7. Press and hold SET to leave setting mode.

TIME ZONE 2 (T2)

SETTING :

1. In WATCH MODE press SELECT to display T2 MODE.
2. Press and hold SET. Hour digits will flash.
3. Enter desired time by pressing PLUS (+) or MINUS (-).
4. Press SELECT. Minute digits will flash. Enter desired time by pressing PLUS (+) or MINUS (-).
5. Press SELECT. Second digits will flash. Press PLUS (+) or MINUS (-) to synchronize the seconds with the analog hand at 0/60.
6. Press SELECT. DST digits will flash. Choose your daylight savings time mode by pressing PLUS (+) or MINUS (-).
7. Press SELECT. 12 hr/24 hr Format digits will flash. Choose your preferred display by pressing PLUS (+) or MINUS (-).
8. Press and hold SET to leave setting mode.

ALARM

ALARM | HOUR | MINUTE | TIME ZONE

PRESS & HOLD SET — PRESS SELECT — PRESS SELECT — PRESS SELECT

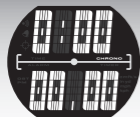SET   PLUS (+)
MINUS (-)   SELECT

SETTING :
1. In WATCH MODE press SELECT twice to display ALARM MODE.
2. Press and hold SET. Hour digits will flash.
3. Enter your desired time by pressing PLUS (+) or MINUS (-).
4. Press SELECT. Minute digits will flash. Enter your desired time by pressing PLUS (+) or MINUS (-).
5. Press SELECT. Zone digits will flash. Choose your preference for alarm synchronization (from HOME or T2 time) by pressing PLUS (+) or MINUS (-).
6. Press and hold SET to leave setting mode. ALARM will automatically be activated (ON). The alarm symbol will appear at the left of the day display when alarm is activated.

OPERATION :
Alarm will now sound at the pre-selected time for 20 seconds. To turn off the alarm during sounding, simply press any button.

To Turn the Alarm on or off after setting, go to ALARM MODE and press MINUS (-) to toggle between ON and OFF. Note that the 🔔 symbol will appear in the top left hand corner when the alarm is activated.

CHRONOGRAPH (STOPWATCH)
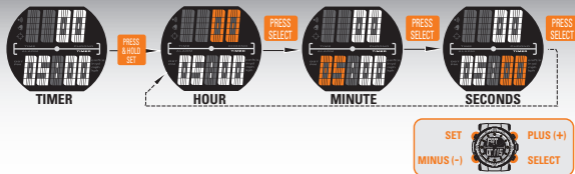

CHRONOGRAPH

SET   PLUS (+)
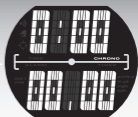
MINUS (-)   SELECT

OPERATION :
1. In WATCH MODE press SELECT three times to display CHRONO MODE.
2. Press MINUS (-) to commence timing in 1/100th up to 59 Hr, 59 Min, 59.99 Sec.
3. Press MINUS (-) to stop timing.
4. Press and hold MINUS (-) to reset Chronograph to zero.

TIMER (COUNTDOWN)

TIMER   **HOUR**   **MINUTE**   **SECONDS**

SET   **PLUS (+)**
MINUS (-)   **SELECT**

SETTING :
1. In WATCH MODE press SELECT four times to display TIMER MODE. Maximum countdown time is 23:59:59.
2. Press and hold SET. Hour digits will flash.
3. Select desired hour by pressing PLUS (+) or MINUS (-).
4. Press SELECT. Minute digits will flash. Select desired minute by pressing PLUS (+) or MINUS (-).
5. Press SELECT. Seconds digits will flash. Select desired second by pressing PLUS (+) or MINUS (-).
6. Press and hold SET to leave setting mode.

OPERATION :
In TIMER MODE, press MINUS (-) to commence countdown in 1 second intervals. (A single beep will sound at one-minute intervals then at one-second intervals for the last ten seconds. At the end of time, the beep will sound for ten seconds)
Press PLUS (+) to stop countdown.
Press and hold MINUS (-) to reset Timer to your preset time.

If you are an experienced rifle shooter, please skip to the next segment, titled "SURESHOT® INTRO." If you are new to long range shooting please read on. This is intended as a simple primer to help you understand the Horus Vision software. It is not a replacement for training and the safe handling of firearms.

In order for the 5.11 HRT® watch to calculate your bullet's trajectory correctly, the software needs to know some specifics about your scope, rifle and cartridge. This segment will briefly explain how and why these specifics affect your bullet's trajectory.

Temperature: As air temperature increases, air density decreases. And as air density decreases it offers less resistance against your bullet's flight which can affect the bullet's point of impact. The Temperature you input into the watch should be accurate within 10 or 15 degrees to the conditions in which you will be shooting.

Bore Height: (Also called scope height) is the distance between the center of your bore and the center of your scope. It is expressed as inches and tenths, eg. 1.7 inches. It is not the height of your rings. Your scope should be mounted as low as possible to the barrel, but not touching. If you are interested in extremely long ranges (past 600 yards) you may also require a canted scope base.

Ballistic Coefficient: This is the efficiency of the bullet as it travels through space. This information is available for popular match type bullets from quality bullet manufacturers. It is typically expressed like .533. Some manufacturers provide this figure for different bullet velocities. Select the one that most closely matches your rifle load's muzzle velocity. Many bullet manufacturers post the Ballistic Coefficient for each bullet on their web site making the internet a great resource for this data.

Muzzle Velocity: This is the speed at which the bullet leaves the barrel of your rifle. This number is the average of a series of bullets fired through a chronograph. Typically a group of 10 shots provides a good average. That number is expressed in FPS, or Feet Per Second. For example a long-range target load can have a muzzle velocity of approximately 3000 FPS. Reloading manuals are a great resource for learning more about bullet and cartridge characteristics.

Zero Range: This is the range at which you have zeroed your rifle. This range is typically 100 or 200 yards.

Display: You have the option of displaying your bullet's point of impact in Mildots, SMOA or TMOA. We recommend that you begin with SMOA. Once you understand the concept and application you will be better informed to select between Mildot, SMOA and TMOA.

Clicks: Most scopes have quarter-minute clicks (4 clicks of adjustment within an inch at 100 yards). Some scopes offer eighth-minute clicks, while some may even offer half or third-minute clicks. Select the appropriate number of clicks per minute. Check your scope's instruction booklet, some manufacturers include this information underneath one of the turret caps.

Units: Select from English or Metric units.

SIDEBAR: In order for the 5.11 HRT® watch to calculate your bullet's trajectory with any reliability, your rifle and you need to be capable of "1 MOA" shooting. That is you need to be able to shoot a 1-inch group at 100 yards. MOA means "Minute of Angle" and is approximately 1" at 100 yards. MOA is further expressed as SMOA ("Shooter's Minute of Angle") and ("True Minute of Angle"). TMOA is true minute of angle and equals 1.047 inch drop at 100 yards. To make the math easier, some scope manufacturers decided to come up with SMOA or Shooters minute of angle = 1 inch drop at 100 yards. The difference is in the scope you are using and how it is calibrated. Mildot is a popular unit of measure for tactical and long-range shooters. If you are going to use a Mildot scope with your 5.11 HRT® watch, please refer to the Mildot instruction manual that came with your scope.

SURESHOT® INTRO

Eye of the Falcon
Horus Vision, LLC

5.11 has partnered with Horus Vision to bring their popular software to you in a convenient and discreet multifunctional watch platform. Extensive development and field testing ensure that the software works with equal precision in our watches.

Popular among law enforcement and military snipers, hunters, and long range shooting enthusiasts, Horus Vision's unique software enables shooters to accurately calculate their bullet's trajectory and drop at extended ranges, up to and beyond 1000 yards.

This product is produced under license from Horus Vision, LLC and is protected by U.S. Patents 6,681,512, 6,516,699, 6,453,595, 6,032,374, and 5,920,995, as well as other pending patents.

WARNING:
THE TECHNOLOGY PROVIDED BY THIS WATCH IS NOT INTENDED
TO, AND IT CANNOT REPLACE, SHARPSHOOTING TRAINING
AND EXPERIENCE, NOR IS IT INTENDED OR ABLE TO ADDRESS
ALL VARIABLES THAT MIGHT AFFECT ANY GIVEN SITUATION.
RELYING UPON THE WATCH'S TECHNOLOGY WITHOUT
EXTENSIVE TRAINING AND EXPERIENCE AND WITHOUT
CAREFULLY CONSIDERING AND ACCOUNTING FOR ALL RELEVANT
CIRCUMSTANCES AND FACTORS COULD RESULT IN SERIOUS
INJURY OR DEATH.

Horus Vision allows shooters to calculate their bullet's point-of-impact (POI) by inputting the following information and variables.

- Temperature °F/°C
- Altitude (Metric & US)
- Height Above Bore
- C1 Ballistic Coefficient
- Muzzle Velocity
- Zeroed Range
- Wind Speed
- Wind Direction
- Target Range
- Inclination Angle
- The firing solution may be displayed in MILS, TMOA, SMOA, or in number of CLICKS.
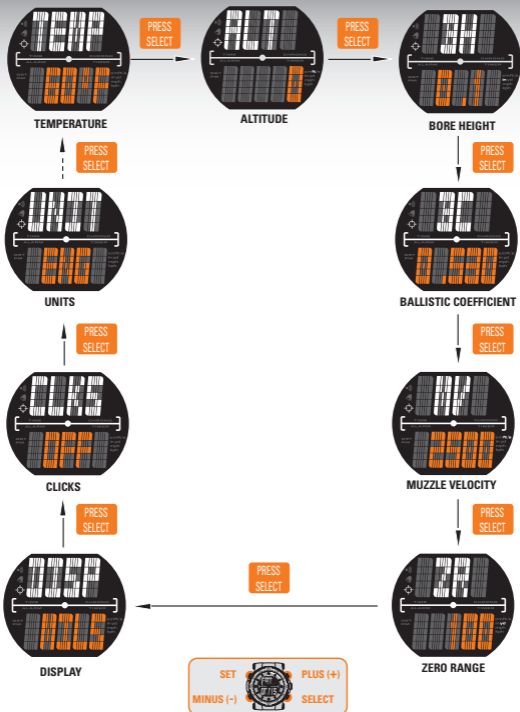
SURESHOT® FUNCTIONS

INITIAL SETTING

Your watch must first be set up with your shooting criteria:

1. In any mode, press SET to display the TARGET RESULT screen.
2. In TARGET RESULT MODE, press and hold SET. TEMP (Temperature) screen will appear. Choose your preference by pressing PLUS (+) or MINUS (-).
3. Press SELECT two times to display BH (Bore Height). Choose your preference by pressing PLUS (+) or MINUS (-).
4. Press SELECT again to display BC (Ballistic Coefficient). Choose your preference by pressing PLUS (+) or MINUS (-).
5. Press SELECT again to display MV (Muzzle Velocity). Choose your preference by pressing PLUS (+) or MINUS (-).
6. Press SELECT again to display ZR (Zero Range). Choose your preference by pressing PLUS (+) or MINUS (-).
7. Press SELECT again to display DISP (Display in MILS, TMOA or SMOA). Choose your preference by pressing PLUS (+) or MINUS (-).
8. Press SELECT again to display CLKS (Clicks). Choose your preference by pressing PLUS (+) or MINUS (-).
9. Press SELECT again to display UNIT (English or Metric). Choose your preference by pressing PLUS (+) or MINUS (-).
10. Press and hold SET to return to the target result mode.
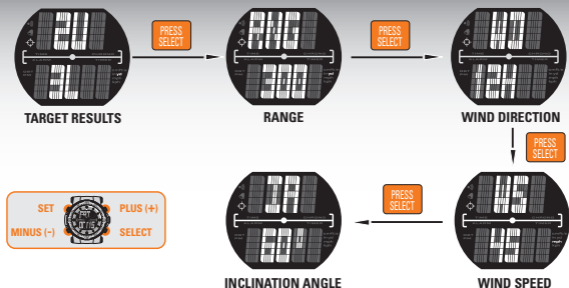11. Press SET to return to watch mode.

SHOOTING SETTINGS

When you are ready to begin shooting set the following preferences:
1. In any mode, press SET to display the TARGET RESULT screen.
2. In TARGET RESULT MODE, press and hold SET. TEMP (Temperature) screen will appear and digits will flash. Choose the ambient temperature by pressing PLUS (+) or MINUS (-).
3. Press SELECT again to display ALT (Altitude). Choose your current height by pressing PLUS (+) or MINUS (-).

TEMPERATURE → PRESS SELECT → **ALTITUDE** → PRESS SELECT → **BORE HEIGHT**

PRESS SELECT

UNITS ← PRESS SELECT

BALLISTIC COEFFICIENT

PRESS SELECT

CLICKS

PRESS SELECT

MUZZLE VELOCITY

PRESS SELECT

DISPLAY ← PRESS SELECT ← **ZERO RANGE**

SET   PLUS (+)
MINUS (−)   SELECT

SURESHOT® OPERATIONS

TARGET RESULTS — **RANGE** — **WIND DIRECTION**

INCLINATION ANGLE — **WIND SPEED**

SET — PLUS (+)
MINUS (−) — SELECT

1. In any mode, press SET to display the TARGET RESULT screen
2. Press SELECT to display RNG (Range). Select the distance to target by pressing PLUS (+) or MINUS (-).
3. Press SELECT to display WD (Wind Direction). Select the current wind direction from the shooter by pressing PLUS (+) or MINUS (-). (E.g. 12 H (ie 6 O'clock) is blowing direct from the target and 6H is from directly behind the shooter).
4. Press SELECT to display WS (Wind Speed). Select the current wind speed by pressing PLUS (+) or MINUS (-).
5. Press SELECT to display IA (Inclination Angle). Program your current angle of inclination from the target by pressing PLUS (+) or MINUS (-).
6. Press and hold SELECT to return to the TARGET RESULT screen.

Note: During any programming mode, press and hold SELECT immediately return to the Target Result screen.

WATCHBAND

TO CHANGE OR REPLACE STRAP
Use the 5.11® strap tool (included) and follow the diagrams below.

When tightening screws, be sure to carefully screw and tighten to a firm but not forced end - Do not over tighten the screw. Check screws periodically as rigorous activity or shock from recoil may loosen screws.
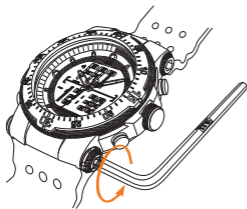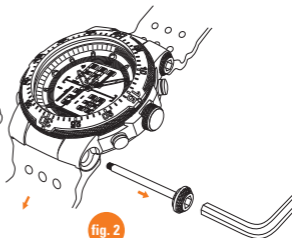

fig. 1

fig. 2

fig. 3

fig. 4

Scope of Warranty

5.11, Inc. ("5.11") warrants each watch sold by 5.11 or its authorized dealers ("Product") to be free of defects in materials or workmanship for two (2) years, or for the maximum period allowed by the laws of your jurisdiction, if less.

Exclusions from Coverage

Excluded from coverage under this warranty are the following:

- Products purchased other than from 5.11 or from an authorized 5.11 dealer.
- Damage resulting from abuse or misuse.
- Damage resulting from extended wear and tear.
- Damage resulting from opening, tampering, or a customer modification.
- Damage resulting from attempted repairs by an unauthorized service provider.
- Damage resulting from exposure to a caustic substance.
- Consequential, incidental, indirect, punitive, exemplary, and/or special damages (although some states in the United States do not allow the exclusion or limitation of consequential or incidental damages, so this exclusion might not apply to you).

This warranty is the exclusive warranty provided by 5.11 relating to the product and, to the maximum extent permitted by law, 5.11 disclaims all other express or implied warranties.

State and International Laws
This warranty gives you specific legal rights, and you may also have other rights which vary from state to state in the United States and in other countries.

What You Will Need to Do
If 5.11 determines that the Product is defective, 5.11 will either replace the Product or repair the Product. All determinations made by 5.11 will be within 5.11's sole discretion and will be final. All warranty claims MUST include a purchase receipt that clearly shows the purchase date. Packaging or this instruction booklet is NOT proof of purchase from an authorized dealer.

We will always do our best to ensure your watch is repaired with the utmost care and consideration. In some cases, however, discontinued styles may not be repairable as the parts may be obsolete and not available. If we cannot repair your part with an exact match, we will offer you a comparable part in its place. All returns by 5.11 in the United States will be sent using ground shipping; shipments being returned to a P.O. Box will be made using U.S. Mail. All returns to international customers will be sent using standard shipping.

If you have a warranty claim, please contact 5.11 for a Return Authorization (RA) number at the address below. Watches received at our authorized service facility without RA numbers will not be repaired under the terms of the warranty. Do not send your watch to 5.11 for service or repair.

5.11, Inc.
4300 Spyres Way
Modesto, CA 95356
Phone: 209-527-4511
Toll Free: 866-451-1726
Fax: 209-527-1511
Email: customerservice@511tactical.com

If you need service or repairs not covered under the warranty, please contact our authorized service facility for an estimate of the cost and time for the work requested:

Watch Service Company
3443 S. State Street #5
Salt Lake City, UT 84115
Toll Free: 877-972-8463
Email: info@watchservices.com

WARRANTY CLAIM FORM

Include this completed warranty claim form when you send your watch to our authorized service facility for warranty repairs.

NAME:

RETURN ADDRESS:

DAYTIME PHONE:
WITH AREA CODE

E-MAIL:

AUTHORIZATION
NUMBER:

BRIEF DESCRIPTION OF PROBLEM: