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Everyone knows how popular solar watches are these days because theyre effective and cost-efficient. However, its also a known fact that theyre pretty hard to use. I know a lot of people who complain about buying Casio Tough Solar watches without knowing how to use it. And they arent the only ones! Seeing these, I decided to make a guide on how to change time on Casio Tough Solar Illuminator to help everyone out.If you happen to own a Casio Tough Solar but dont know how to set the time, then this guide is for you. The process explained below uses special tools or other things in order to set the time on the Casio Tough Solar. Since most of them dont know how to use it, they usually think that some sort of special tools is needed.The beauty of this watch is that you dont need anything for it. You dont even need to change the batteries because you can charge it. For this guide, I suggest that you get your manual and familiarize yourself with the different buttons and modes. In order to change the time, youll need all of that information.Also, you might want to charge your watch right away the moment you notice that its losing battery power. The reason for this is because if ever your battery goes flat, then the configuration (including the time you have set) will be reset.Anyway, the only thing youll really need is the watch itself and the manual. With that out of the way, we can go on to the steps which you can find below.Step by Step InstructionsStep 1: Study the Different ModesFirst, you need to take note of the 7 different modes. There is the stopwatch, world time, alarm, receive, date recall, countdown, and timekeeping. These are the important ones that you need to take note of. The mode button can be found on the lower left button. This button is used to change the mode. So you start with world time mode and then you can change mode by pressing on this button.The Timekeeping mode has three sub-modes that are important for this guide but well mention them anyway. These three sub-modes are the altimeter, the barometer, and the digital compass.Step 2: Go to the Timekeeping ModeAnother function of the Timekeeping Mode is to set the time. So the first thing that you should do is to hold the lower-left corner button until you reach your Timekeeping mode.Youll know if its in this mode if it shows the date, time, and day.Step 3: Choose Your Location and TimezoneWhen you get into the Timekeeping mode, the next thing you do is press the top left corner button. Youll get to see a bunch of cities and timezones. You just need to keep on pressing the right corner button and choose the city or location thats closest to you. This will give you your timezone.Once you do this, simply press the bottom left button. Upon doing this, the time will automatically match your city or timezones time.Step 4: Repeat the Previous StepFinally, to set the watch to your Timekeeping Mode is to repeat the process and match your time with the citys time youre in.Also, we mentioned above that whenever your Casio Tough Solars battery will go bust, the configuration will be reset. So you need to align the time again so you can get the right one as per your city.ConclusionSo were you able to learn a lot? Did you enjoy reading the article? I believe that is a really useful article for those who own Casio Tough Solar watches because it breaks down the steps of changing the time into simple bite-sized pieces. That way, you wont have trouble following the instructions.If there are other things youd like to share or if youd like to give some feedback, leave a comment on the comments section below. Dont forget to share it with your friends!I am Kathleen Miller, staff writer and reviewer of the Avasolar team. Working with the team has been a pleasure for me so far, I hope to bring readers useful information by creating detailed and easy-to-follow contents! The measurement functions built into this watch are not intended for taking measurements that require professional precision. Watch 3173 and 3246 are identical. All of the illustrations in this Note that the product illustrations in this manual are intended for reference only, and so the actual Is H or M displayed for the battery power indicator?Go to step 2.Power is low. Charge the watch by placing it in a location where it is exposed to light. For details, see Charging the Watch.To test the watchs charge, follow one of the following conditions exist? Battery power indicator rows Level and LOW is displayed in the upper left corner of the screen. C is displayed in the lower left corner of the screen. The face is blank.The watch is charged sufficiently.For details about charging, see Charging the Watch.NEXTBattery power indicator Turn on the watchs Power Saving function and keep it in an area normally exposed to bright light when Storing the watch for long periods in an area where there is no light or wearing it in such a way that it is (Light)(Light)(Light)Module 3173(Light)Module 3246(Light)(Light)(Light)Module 3173(Light)Module 3246Level Battery Power Indicator Function Status1(H)All functions enabled.(2)(M)All functions enabled.(3)(L)llllllllllllllllllllllIllumination, beeper, and sensor operation disabled.(4)(C)Except for timekeeping and the C (charge) indicator, all functions and display indicators disabled.5(L)All functions disabled.LOWL At Level 5, all functions are disabled and the settings return to their initial factory defaults. Once the battery MM). Leaving the watch exposed to direct sunlight or some other very strong light source can cause the All data stored in memory is deleted, and the current time and all other settings return to their initial Performing multiple sensor, illumination, or beeper operations during a month period may cause all of H,M1H,M,L1H,M1,LCH1HM,H,LH,M,LExposure Level (Brightness)DailyOperation*1Level Change *2Level 5 Level 4 Level 3 Level 2 Level 1Outdoor sunlight (50,000 lux) 5 min. 2 hours 12 hours 4 hoursSunlight through a window (10,000 lux)24 min. 5 hours 59 hours 16 hoursDaylight through a window on a cloudy day (5,000 lux)48 min. 9 hours 120 hours 32 hoursIndoor uorescent lighting (500 lux) 8 hours 95 hours The above exposure times all are for reference only. Actual exposure times depend on lighting For details about the operating time and daily operating conditions, see the Power Supply section of Elapsed Time in Dark Display Operation60 to 70 minutes (display sleep) Blank, with PS ashing Display is off, but all functions are disabled. The watch wakes from sleep as soon as you Or Blank, with PS not ashingAll functions are disabled, but timekeeping is maintained. The watch will not enter a sleep state between 6:00 AM and 9:59 PM. If the watch is already in a sleep The watch will not enter a sleep state while it is in the Stopwatch Mode or Countdown Timer Mode.8 Before the city code starts to ash, the message SET HoldEDAOnOFF).E The Power Saving on indicator (PS) is on the display in all conditions, the message SET HoldEACA or CD4:UseAOFFOn.E The DST indicator appears to indicate that Daylight Saving Time is automatically if you do not perform any button operation If you leave a screen with ashing digits on the display for two or three minutes without performing anyTheACEYearPMweekdayE Before the city code starts to ash, the message SET HoldEACA or CD4:UseAOFFOn.E The DST indicator appears to indicate that Daylight Saving Time is turned on.Note After you specify a city code, the watch will use UTC* offsets in the World Time Mode to calculate E Before the city code starts to ash, the message SET HoldEDAOFFOn.E The DST indicator appears to indicate that Daylight Saving Time is PMCitycodeDayPMCitycodeDayDLA,BCModeModeModeModeModePage 33You can use the procedure below to adjust the Timekeeping Mode time and date settings if they are off.To change the current time and date settings1.In the Timekeeping Mode, hold down E until the currently selected city code starts to ash.2. Use A and C to select the city code you want. Select your Home City code Table 3. Press D to move the setting in the sequence shown below to select the other settings.(Thermometer/Barometer/Altitude unitPowerSavingIlluminationDurationButton Operation Tone On/OffDay MonthCity Code DST12(24-HourFormatSeconds Hour Minutes Hour Minutes Press D to move the setting in the sequence shown below to con gure timekeeping settings.4. When the timekeeping setting you want to change is ashing, use A and/or C to change it as described below.Screen To do this: Change the city code Use A (East) and C (West).Toggle between Daylight Saving Time (On) and Standard Time (Off).Press A.Toggle between 12-hour (12H) and 24-hour (24H) timekeeping.Press A.50Reset the seconds to 00Press C.Change the hour or minutesUseA (+) and C ().Change the year, month, or day5. Press E twice to exit the setting screen.Note For information about selecting a Home City and con guring the DST setting, see Con guring Home City Settings. While 12-hour format is selected for timekeeping, a P (PM) indicator will appear for times from noon to 11:59 p.m. No indicator appears for times from midnight to 11:59 a.m. With 24-hour format, time is displayed from 0:00 to 23:59, without any P (PM) indicator. The watchs built-in full automatic calendar makes allowances for different month lengths and leap years. Once you set the date, there should be no reason to change it except after you have the watch is Digital Compass Mode. A built-in bearing sensor detects magnetic north at regular intervals and indicates one of 16 directions on the display To take a digital compass reading.1. Make sure the watch is in the Timekeeping Mode or any one of the sensor modes. The sensor modes are: Digital Compass Mode, Barometer/Thermometer Mode, and Altimeter Mode.2. Place the watch on a at surface. If you are wearing the watch, make sure that your wrist is horizontal in relation to the horizon).3. Point the 12 oclock position of the watch in the direction you want to measure.4. Press C to start digital compass measurement. COMP will appear on the display to indicate that a digital compass operation is in progress. See Digital Compass Readings for information about what appears on the display.Note If a value appears to the right of the direction indicator, it means that the bearing memory screen is displayed. If this happens, press E to exit the bearing memory screen.5. After you are nished using the digital compass, press D to return to the initial factory defaults. Once the battery.Digital Compass Mode.A built-in bearing sensor detects magnetic north at regular intervals and indicates one of 16 directions on the display To take a digital compass reading.1. Make sure the watch is in the Timekeeping Mode or any one of the sensor modes. The sensor modes are: Digital Compass Mode, Barometer/Thermometer Mode, and Altimeter Mode.2. Place the watch on a at surface. If you are wearing the watch, make sure that your wrist is horizontal in relation to the horizon).3. Point the 12 oclock position of the watch in the direction you want to measure.4. Press C to start digital compass measurement. COMP will appear on the display to indicate that a digital compass operation is in progress.Note If a value appears to the right of the direction indicator, it means that the bearing memory screen is displayed. If this happens, press E to exit the bearing memory screen.5. After you are nished using the digital compass, press D to return to position of the watch is pointing. Four pointers that indicate magnetic north, south, east, and west also will appear. After the rst reading is obtained, the watch will continue to take digital compass readings automatically each second for up to 20 seconds. After that, measurement will stop automatically. The direction indicator and digital value show - - to indicate that digital compass readings are complete. The auto light switch is disabled during the 20 seconds that digital compass readings are being taken. The following table shows the meanings of each of the direction abbreviations that appear on the display.Direction Meaning Direction Meaning Direction MeaningMeaningNNorthNNENorth-northeastNENortheastENEEast-northeastEEastESEEast-southeastSESoutheastSSSouth-southeastSSouthSSWSouth-southwestSWSouthwestWSWWest-southwestWWestWNWWest-northwestNWNorthwestNNWNorth-northwest The margin of error for the angle value and the direction indicator is 11 degrees while the watch is horizontal (in relation to the horizon). If the indicated direction is northwest (NW) and 315 degrees, for example, the actual direction can be anywhere from 304 to 326 degrees.PMindicatorCitycodeMonthDaySecondsHour - MinutesPMindicatorCitycodeMonthDaySecondsHour - MinutesNWNNWWWSSWSSESEENENNN901802701201 oclock positionCurrenttimeNorthpointerDirectionindicatorAngle value (in degrees) Note that taking a measurement while the watch is not horizontal (in relation to the horizon) can result in large measurement error. You can calibrate the bearing sensor if you suspect the direction reading is incorrect. Any ongoing direction measurement operation is paused temporarily while the watch is performing an alert operation (daily alarm, Hourly Time Signal, countdown timer alarm) or while illumination is turned on (by pressing L). The measurement operation resumes for its remaining duration after the operation that caused it to pause is nished. See Digital Compass Precautions for important information about taking direction readings.Calibrating the Bearing SensorYou should calibrate the bearing sensor under any of the following conditions: You never feel that the direction readings being produced by the watch are off. There are three different calibration methods available: magnetic declination correction, bidirectional calibration, and northerly calibration. Magnetic Declination CorrectionWith magnetic declination correction, you input a magnetic declination angle (difference between magnetic north and true north), which allows the watch to indicate true north. To perform this procedure when the magnetic declination angle is indicated on the map you are using. Note that you can input the declination angle in whole degree units only, so you may need to round off the value speci ed on the map. If your map indicates the declination angle as 7.4, you should input 7. In the case of 7.6 input 8, for 7.5 you can input 7 or 8. Bidirectional Calibration and Northerly CalibrationBidirectional calibration and northerly calibrate the accuracy of the bearing sensor in relation to magnetic north. Use bidirectional calibration when you want to take readings within an area exposed to magnetic force. This type of calibration should be used if the watch becomes magnetized for any reason. With northerly calibration, you teach the watch which way is north (which you have to determine with another compass or some other means).Important! The more correctly you perform bidirectional calibration, the better the accuracy of the bearing sensor readouts. You should perform bidirectional calibration whenever you change environments where you use the bearing sensor, and whenever you feel that the bearing sensor is producing incorrect readings.To perform magnetic declination correction1.In the Digital Compass Mode, hold down E until the current magnetic declination settings start to ash, the message SET Hold will appear on the display. Keep E depressed until SET Hold disappears and the magnetic declination setting start to a sh.2. Use A (East) and C (West) to change the declination angle. The following explains magnetic declination angle setting.OFF: No magnetic declination correction performed. The magnetic declination angle with this setting is 0.E: When magnetic north is to the east (east declination)W: When magnetic north is to the west (west declination) You can select a value within the range of W 90 to E 90 with these settings. You can turn off (OFF) magnetic declination correction by pressing A and C at the same time. The illustration, for example, shows the value you should input and the direction setting you should perform about bidirectional calibration You can use two opposing directions for bidirectional calibration. You must, however, make sure that they are 180 degrees opposite each other. Remember that if you perform the procedure incorrectly, you will get wrong bearing sensor readings. Do not move the watch while calibration of either direction is in progress. You should perform bidirectional calibration in an environment that is the same as that where you plan to be taking direction readings. If you plan to take direction readings in an open eld, for example, calibrate in an open eld.To perform bidirectional calibration1. In the Digital Compass Mode, hold down E until the current magnetic declination settings start to ash on the display. This is the setting screen. Before the magnetic declination settings start to ash, the message SET Hold will appear on the display. Keep E depressed until SET Hold disappears and the magnetic declination settings start to ash.2. Press D to display the bidirectional calibration screen. At this time, the north pointer ashes at the 12 oclock position and the display will show -1- to indicate that the watch is ready to calibrate the rst direction.3. Place the watch on a level surface facing any direction you want, and pressC to calibrate the rst direction. - - - is shown on the display while calibration is being performed. When calibration is successful, the display will show OK and -2-,and the north pointer ashing at the 6 oclock position. This means that the watch is ready for calibration of the second direction.4. Rotate the watch 180 degrees.5. Press C again to calibrate the second direction. - - - is shown on the display while calibration is being performed. When calibration is successful, the display will setting.1. In the Digital Compass Mode, hold down E until the current magnetic declination settings start to ash on the display. This is the setting Before the magnetic declination settings start to ash, the message SET Hold will appear on the display. Keep E depressed until SET Hold disappears and the magnetic declination settings start to ash.2. Press D twice to display the northerly calibration screen. At this time, -N- (north) appears on the display.3. Place the watch on a level surface, and position it so that its 12 oclock position points north (as measured with another compass).4. Press C to start the calibration. - - - is shown on the display while calibration is being performed. When calibration is successful, the display will show OK and then change to the Digital Compass Mode.(- - -).Magnetic declination angle valueMagnetic declination angle valueMagnetic declination value (E, W, or OFF)Magnetic declination angle valueMagnetic declination value (E, W, or OFF)Page 44Bearing MemoryBearing Memory lets you store a direction reading and display that reading as you take subsequent digital compass measurements. The Bearing Memory stores the direction angle for the stored direction, along with an indicator on the display that indicates the direction. When you take digital compass measurements after storing the bearing Memory screen is on the display, the direction angle of the current digital compass measurement (as read from the 12 oclock position of the watch) and the currently stored Bearing Memory direction information will both be displayed.To store a direction angle reading in Bearing Memory1. Press C to start a digital compass measurement operation. If a bearing memory direction angle value is already displayed, it means that the bearing memory screen is displayed. If this happens, press E to clear the value currently in Bearing Memory and exit the bearing memory screen.2. During the 20 seconds that digital compass measurement is in progress, press E to store the current direction angle reading in Bearing Memory. The Bearing Memory direction angle ashes for about one second as it is stored in Bearing Memory. After that, the Bearing Memory screen (which shows the bearing memory direction angle) will appear, and a 20-second direction reading operation will start. While the Bearing Memory screen is displayed, you can press C to start a new 20-second direction reading operation, which displays the direction angle for the direction that the 12 oclock position of the watch is pointing in. The direction angle of the current readings will disappear from the display after the direction reading operation is complete. During the rst 20 seconds after you display the Bearing Memory screen or during the 20-second direction reading operation while the Bearing Memory screen is on the display, the direction stored in memory is indicated by a Bearing Memory pointer. Pressing E while the Bearing Memory screen is displayed will clear the direction angle currently in Bearing Memory and start a 20-second direction reading operation.This section provides three practical applications for using the watchs built-in compass. Setting a map and nding your current location Having an idea of your current location is important when mountain climbing or hiking. To do this, you need to set the map, which means to align the map so the direction indicated by the watch and the actual directions of your location. Basically what you are doing is aligning north on the map with north as indicated by the watch. Finding the bearing to an objective Determining the direction angle to an objective on a map and heading in that directionTo set a map and nd your current location1. With the watch on your wrist, position it so the face is horizontal.2. While in the Timekeeping Mode or in any of the sensor modes, press C to take a compass reading. The reading will appear on the display after about two seconds.3. Rotate the map without moving the watch so the northerly direction indicated on the map matches north as indicated by the watch. If the watch is con gured to indicate magnetic north, align the maps magnetic north with the watch indication. If the watch has been con gured with a declination to correct to true north, align the maps true north with the watch indication. For details, see Calibrating the Bearing Sensor. This will position the map in accordance with your current location.4. Determine your location as you check the geographic contours around you.To nd the bearing to an objective1. Set the map so its northerly direction is aligned with north as indicated by the watch, as described in the procedure under Setting a map and nd your current location to perform the above step 2. As shown in the illustration to the left, change your position so you (and the 12 oclock position of the watch) are pointed in the direction of objective, while keeping northerly direction indicated on the map aligned with north as indicated by the watch. If you nd it di cult to perform the above step while keeping everything aligned, rst move onto the correct position (12 oclock position of the watch pointed at the objective) without worrying about the orientation of the map. Next, perform step 1 again to set the map.12 oclock positionBearing memory direction angleNorthpointerDirection angle of current readingBearing Memory ScreenBearingmemorypointer12 oclock positionBearing memory direction angleNorthpointerDirection angle of current readingBearing Memory ScreenBearingmemorypointerNNCurrentlocation12 oclock positionNNObjectiveCurrentlocation12 oclock positionNNObjectiveCurrentlocation12 oclock position3. While in the Timekeeping Mode or in any of the sensor modes, press C to take a compass reading. A reading will appear on the display after about two seconds. Still holding the map in front of you, turn your body so north as indicated by the watch and the northerly direction on the map are aligned. This will position the map in accordance with your current location, so use the bearing to your objective is straightahead straight line direction to an objective on a map and head in that direction. Set the map so its northerly indication is aligned with north as indicated by the watch, and determine your current location. See To set a map and nd your current location for information about how to perform the above step 2. As shown in the illustration to the left, change your position so you (and the 12 oclock position of the watch) are pointed in the direction of objective, while keeping northerly direction indicated on the map aligned with north as indicated by the watch. If you nd it di cult to perform the above step while keeping everything aligned, rst move onto the correct position (12 oclock position of the watch pointed at the objective) without worrying about the orientation of the map. Next, perform step 1 again to set the map.12 oclock positionBearing memory direction angleNorthpointerDirection angle of current readingBearing Memory ScreenBearingmemorypointerNNCurrentlocation12 oclock positionNNObjectiveCurrentlocation12 oclock positionNNObjectiveCurrentlocation12 oclock position3. While in the Timekeeping Mode or in any of the sensor modes, press C to take a compass reading. A reading will appear on the display after about two seconds. While direction angle readings are in progress, press E to record the currently displayed direction in Bearing Memory. The direction angle value and pointer stored in Bearing Memory will remain on the display for about 20 seconds. See Bearing Memory for more information.5. Now you can advance while monitoring the Bearing Memory pointer to ensure that it remains in the 12 oclock position. To re-display the Bearing Memory direction angle value and Bearing Memory pointer, press C. Pressing E while the Bearing Memory direction angle value and Bearing Memory pointer are on the display will clear the bearing memory data you saved in step 3 and save the current direction reading in Bearing Memory.Note When mountain climbing or hiking, conditions or geographic contours may make it impossible for you to advance in a straight line. If this happens, return to step 1 and save a new direction to the objective.Digital Compass PrecautionsThis watch features a built-in magnetic bearing sensor. Magnetic north is somewhat different from true north (which the magnetic south pole is in southern Australia. Note that the difference between magnetic north and true north are measured with a built-in magnetic bearing sensor that detects magnetic north. This means that north indicated by this watch is magnetic north, which is somewhat different from true polar north. The magnetic north pole is located in northern Canada, while the magnetic south pole is in southern Australia. Note that the difference between magnetic north and true north (declination) can cause large errors in readings. Because of this, you should avoid taking direction readings while in the vicinity of the following types of objects: permanent magnets (magnetic necklaces, etc.), concentrations of metal (metal doors, lockers, etc.), high tension wires, aerial wires, household appliances (TVs, personal computers, washing machines, freezers, etc.). Accurate direction readings are impossible while in a train, boat, air plane, etc. Accurate readings are also impossible indoors, especially inside ferroconcrete structures. This is because the metal framework of such structures picks up magnetism from appliances, etc.Storage The precision of the bearing sensor may deteriorate if the watch becomes magnetized. Because of this, you should store the watch away from magnets or any other sources of strong magnetism, including: permanent magnets (magnetic necklaces, etc.) and household appliances (TVs, personal computers, washing machines, freezers, etc.). Whenever you suspect that the watch may have become magnetized, perform the procedure under To perform bidirectional calibration This watch uses a pressure sensor to measure barometric (barometric pressure) and a temperature sensor to measure temperature.To enter and exit the Barometer/Thermometer Mode1. While in the Timekeeping Mode or in any of the sensor modes, press B to enter the Barometer/Thermometer Mode. BARO will appear on the display, indicating that barometric pressure and temperature measurements are in progress. The measurement results will appear on the display after about seconds. After you press B, the watch will take readings every ve seconds for the rst ve minutes, and then every two minutes after that.2. Press D to return to the Timekeeping Mode. The watch will return to the Timekeeping Mode automatically if you do not perform any operation for about one hour after entering the Barometer/Thermometer Mode.To take barometric pressure and temperature readingsWhile in the Timekeeping Mode or in any of the sensor modes, press B. This starts barometric pressure and temperature measurements automatically. You also can perform a barometric pressure and temperature measurement at any time by pressing B.In the Barometer/Thermometer Mode. It can take up to four or ve seconds for the barometric pressure reading to appear after you enter the Barometer/Thermometer Mode.Barometric Pressure measurement range is displayed in units of 1 hPa (or 0.05 inHg).The displayed barometric pressure value changes to - - - if a measured barometric pressure falls outside the range of 260 hPa to 1,100 hPa (7.65 inHg to 32.45 inHg). The barometric pressure value will reappear as soon as the measured barometric pressure is within the allowable range.Temperature Temperature is displayed in units of 0.1C (or 0.2F). The displayed temperature value changes to - - - C (or F) if a measured temperature falls outside the range of 10.0C to 60.0C (14.0F to 140.0F). The temperature value will reappear as soon as the measured temperature is within the allowable range.Display UnitsYou can select either hectopascals (hPa) or inchesHg (inHg) as the display unit for the measured barometric pressure, and Celsius (C) or Fahrenheit (F) as the display unit for the measured temperature value. See To specify temperature, barometric pressure, and altitude units.Barometric Pressure indicates changes in the atmosphere. By monitoring these changes you can predict the weather with reasonable accuracy. This watch takes barometric pressure measurements automatically every two hours (at the 30th minute of every even numbered hour). Measurement results are used to produce barometric graph and barometric pressure differential pointer readings.The horizontal axis of the graph represents time, with each dot standing for two hours. The rightmost dot represents the most recent reading. The vertical axis of the graph represents barometric pressure, with each dot standing for the relative difference between its reading and that of the dots next to it. Each dot represents 1 hPa.12 oclock positionBearingmemorypointerNorthpointerDirection angle of current readingBearing memory direction angle value12 oclock positionBearingmemorypointerNorthpointerDirection angle of current readingBearing memory direction angle valueTemperatureBarometric graphBarometricpressurePressure differential pointerTemperatureBarometric graphBarometricpressurePressure differential pointerTemperatureBarometric graphBarometricpressureTimeBarometricpressureTimeBarometricpressure55The following shows how to interpret the data that appears on the barometric pressure graph.A rising graph generally means improving weather.A falling graph generally means deteriorating weather. Note If there are sudden changes in weather or temperature, the graph line of past measurements may run off the top or bottom of the display. The entire graph will become visible once barometric conditions stabilize. The following conditions cause the barometric pressure measurement to be skipped, with the corresponding point on the barometric pressure graph being left blank. Barometric reading that is out of range (260 hPa to 1,100 hPa or 7.65 inHg to 32.45 inHg) Sensor malfunctionBarometric Pressure Differential PointerThis pointer indicates the relative difference between the most recent barometric pressure reading indicated on the barometric pressure graph, and the current barometric pressure. Barometric Pressure Differential PointerPressure differential is indicated in the range of 10 hPa, in l-hPa units. The nearby screen dot, for example, shows what the pointer would indicate when the calculated pressure differential is approximately 5 hPa (approximately 0.15 inHg). Barometric pressure is calculated and displayed using hPa as the standard. The barometric pressure differential also can be read in inHg units as shown in the illustration (1 hPa = 0.03 inHg).Pressure Sensor and Temperature Sensor CalibrationThe pressure sensor and temperature sensor built into the watch are calibrated at the factory and normally require no further adjustment. If you notice serious errors in the pressure readings and temperature readings produced by the watch, you can calibrate the sensor to correct the errors.Important! Incorrectly calibrating the pressure sensor can result in incorrect readings. Before performing the calibration procedure, compare the readings produced by the watch with those of another reliable and accurate thermometer. If adjustment is required, remove the watch from your wrist and wait for 20 or 30 minutes to give the temperature of the watch time to stabilize.To calibrate the pressure sensor and the temperature sensor1. While in the Timekeeping Mode or in any of the sensor modes, press Bto enter the Barometer/Thermometer Mode.2. Hold down E until the current barometric pressure value starts to ash on the display. This is the setting screen. Before the barometric pressure value starts to ash, the message SET Hold will appear on the display. Keep E depressed until SET Holddisappears.3. Press D to move the setting between the temperature value and barometric pressure value, to select the one you want to calibrate.4.UseA (+) and C () to set the calibration value in the units shown below. Temperature 0.1C (0.2F) Barometric Pressure 1 hPa (0.05 inHg) To return the currently ashing value to its factory default setting, press A and C at the same time. OFF will appear at the ashing location for about one second, followed by the initial default values.5. Press E to return to the Barometer/Thermometer Mode screen.Barometer and Thermometer Precautions The pressure sensor built into this watch measures changes in air pressure, which you can then apply to your own weather predictions. It is not intended for use as a precision instrument in cial weather prediction or reporting applications. Sudden temperature changes can affect pressure sensor readings. Temperature measurements are affected by your body temperature (while you are wearing the watch), direct sunlight, and moisture. To achieve a more accurate temperature measurement, remove the watch from your wrist, place it in a well ventilated location out of direct sunlight, and wipe all moisture from the case. It takes approximately 20 to 30 minutes for the case of the watch to reach the actual surrounding temperature.AltimeterThe watch displays values based on air pressure readings taken by a built-in pressure sensor.How The Altimeter Measures AltitudeThe altimeter can measure altitude based on its own preset values (initial default method) or using a reference altitude speci ed by you.When you measure altitude based on preset valuesData produced by the watchs barometric pressure sensor is converted to approximate altitude based on ISA (International Standard Atmosphere) conversion values stored in watch memory.When you measure altitude using a reference altitude speci ed by youYou specify a reference altitude, the watch uses that value to convert barometric pressure to altitude. When mountain climbing, you can specify a reference altitude value in accordance with a marker along the way. After that, the altitude readings that the watch produces will be in accordance with your reference altitude value.Not visible on the display.Not visible on the display.BarometricpressuredifferentialpointerBarometricpressuredifferentialpointerBarometric pressure differential pointerInHg valuesInHg valuesInHg valuesCurrent pressure greater than most recent measured pressureCurrent pressure less than most recent measured pressureBarometric pressure differential pointerBarometricpressuredifferentialpointerBarometricpressuredifferentialpointerBarometric pressure differential pointerInHg valuesCurrent pressure greater than most recent measured pressureCurrent pressure less than most recent measured pressureBarometric pressure differentialDigital Compass Mode, Barometer/Thermometer Mode, and Altimeter Mode.2. PressA to start Altimeter measurement. ALTI will appear on the display, indicating that Altimeter measurement is in progress. The rst reading will appear on the display after about four or ve seconds. The current altitude value is displayed in units of 5 meters (20 feet). After the rst reading is obtained, the watch continues to take altimeter readings automatically every ve seconds for the rst three minutes, and then every two minutes after that (under initial default setting). If you leave the watch in the Altimeter Mode, it will update the displayed altitude value regularly and indicate reading-to-reading changes in graph form. You can use the procedure under Selecting an Altitude Auto Measurement Method to specify the altitude auto measurement method you want to use.3. After you are nished using the Altimeter, pressD to return to the Timekeeping Mode and stop auto measurement. The watch will return to the Timekeeping Mode automatically if you do not perform any operation for about 24 hours after entering the Altimeter Mode (under initial default settings).Reading the Altitude GraphThe altitude graph shows Altimeter Mode auto measurement results over time. The vertical axis of the graph represents altitude, and each dot stands for 10 meters (40 feet). The horizontal axis represents time. For the altitude readings taken during the rst three minutes after you start an altimeter measurement operation, each dot represents ve seconds. After that, each dot represents two minutes (under initial default settings). An out of range reading or a measurement error will cause the column of dots for that reading to be blank (skipped).Note The measurement range for altitude is 700 to 10,000 meters (2,300 to 32,800 feet). The displayed altitude value changes to - - - if an altitude reading falls outside the measurement range. An altitude value will reappear as soon as the altitude reading is within the allowable range. Normally, displayed altitude values are based on the watchs preset conversion values. You also can specify a reference altitude value, if you want. See Specifying a Reference Altitude Value. You can change the unit for displayed altitude values to either meters (m) or feet (ft).See To specify temperature, barometric pressure, and altitude units.Selecting an Altitude Auto Measurement MethodYou can select either of the following two altitude auto measurement methods. 005: Readings at ve-second intervals for the rst three minutes followed by two-minute intervals for approximately 24 hoursNoteIf you do not perform any button operation while in the Altimeter Mode, it will return to the Timekeeping Mode automatically after 24 hours (altitude auto measurement method: 200) or after one hour (altitude auto measurement method: 005).To select the altitude auto measurement method1. In the Altimeter Mode, hold down E until the currently selected value starts to ash. This is the setting screen. Before the reference altitude value starts to ash, the message SET Hold will appear on the display. Keep E depressed until SET Hold disappears.2. Press D to display the current altitude auto measurement method setting. This will cause either 005 or 200 to ash on the display.3. Press A to toggle the altitude auto measurement method setting between005 and 200.4. Press E to exit the setting screen.Using the Altitude Differential ValueThe Altimeter Mode includes an altitude differential value that shows the change in altitude from a reference point you specify. The altitude differential value is updated each time the watch takes an altitude reading. One real-life example of how to use this feature.To specify the altitude differential start point1. In the Altimeter Mode, press E. The watch will take an altitude reading and register the result as the altitude differential value start point. The altitude differential value will be reset to zero at this time.AltitudedifferentialAltitudeCurrentAltitudeCurrenttimeAltitudeLatestreadingTimeAltitudeLatestreadingTimeAltitudedifferentialAltitudedifferentialAltitudedifferentialAltitudedifferentialValue startAltitudedifferentialPage 66Using the Altitude Differential Value While Mountain Climbing or HikingAfter you specify the altitude differential start point while mountain climbing or hiking, you easily can measure the change in the altitude between that point and other points along the way.To use the altitude differential value1. In the Altimeter Mode, check to make sure that an altitude reading is on the display. If an altitude reading is not displayed, press A to take one. See To take an altimeter reading for details.2. Use the contour lines on your map to determine the difference in altitude between your current location and your destination.3. In the Altimeter Mode, press E to specify your current location as the altitude differential value start point. The watch will take an altitude reading and register the result as the altitude differential value start point. At this time.4. While comparing the altitude difference you determined on the map and the watchs altitude differential value, advance towards your destination. If the map shows that the difference in altitude between your location and your destination is +80 meters for example, you know you will be nearing your destination when the displayed differential value shows +80 meters.Specifying a Reference Altitude ValueThe altitude readings produced by this watch are subject to error caused by changes in air pressure. Because of this, we recommend that you update the reference altitude value whenever one is available during your climb. After you specify a reference altitude value, the watch adjusts its air-pressure to altitude conversion calculation accordingly.To specify a reference altitude value1. In the Altimeter Mode, hold down E until the current reference altitude value starts to ash. This is the setting screen. Before the reference altitude value starts to ash, the message SET Hold will appear on the display. Keep E depressed until SET Hold disappears.2. Press A (+) or C () to change the current reference altitude value by 5 meters (or 20 feet). Specify a reference altitude value based on accurate altitude information about your current location from a map, etc. You can set the reference altitude value within the range of 10,000 to 10,000 meters (32,800 to 32,800 feet). Pressing A and C at the same time returns to OFF (no reference altitude value), so the watch performs air pressure to altitude conversions based on preset data only.3. Press E to exit the setting screen.Types of Altimeter DataThe Altimeter Mode can maintain two types of altitude data. The Auto DataThe watch can maintain two types of altitude records, and auto save values (minimum, maximum, vertical ascent, vertical descent). Use the Data Recall Mode to view data stored in memory. See Viewing Altitude Records for details.Manual Measurement RecordsAny time you perform the procedure below in the Altimeter Mode, the watch will create and store a record with the currently displayed altitude reading, along with the measurement time and date. There is enough memory to store up to 25 manual measurement records, which are numbered from REC01throughREC25.To save a manual measurement record1. In the Altimeter Mode, check to make sure that an altitude reading is on the display. If an altitude reading is not displayed, press A to take one. See To take an altimeter reading for details.2. Hold down A until REC Hold appears on the display. This will save the currently displayed altitude reading in a manual measurement record, along with the measurement time and date. The watch will return to the Altimeter Mode auto measurement operation is complete. There is enough memory to store up to 25 manual measurement records. If there are already 25 manual measurement records in memory, the above operation will cause the oldest record to be deleted automatically to make room for the new one. Auto Save ValuesTwo sets of auto save values (Set 1 and Set 2) are maintained in watch memory.Set 1 Set 2Maximum Altitude (MAX-1)Minimum Altitude (MIN-1)Vertical Ascent (ASC-1)Vertical Descent (DSC-1)Maximum Altitude (MAX-2)Minimum Altitude (MIN-2)Vertical Ascent (ASC-2)Vertical Descent (DSC-2)These values are checked and updated automatically by the watch as altitude auto measurements are taken.How Maximum and Minimum Values Are UpdatedWhile the watch is in the Altimeter Mode, altitude readings are taken automatically at the interval speci ed by the altitude auto measurement method. The watch compares the current reading against the MAX (MAX-1 and MAX-2) and MIN (MIN-1 and MIN-2). It will replace the MAX value if the current reading is greater than MAX, or the MIN value if the current reading is less than MIN.How Vertical Ascent/Descent Values Are UpdatedSession start point20 m0 m120 m320 m620 mSession end pointThe total Vertical Ascent and Vertical Descent values produced by an Altimeter Mode measurement session during the example climb illustrated above are calculated as follows. Vertical Ascent: (300 m) + (620 m = 920 m Vertical Descent: (320 m) + (500 m = 820 mCurrentlocationDestinationCurrentlocationDestinationStart pointAltitudedifferentialAltitudedifferentialStart pointCurrentaltitudeCurrentaltitudeEntering the Altimeter Mode starts a new altitude auto measurement session, but it does not reset the currentASC (ASC-1 and ASC-2) and DSC (DSC-1 and DSC-2) values or change them in any way. This means that the starting ASC and DSC values for a new Altimeter Mode auto measurement session are the values that currently are in memory. Each time you complete an Altimeter Mode auto measurement session by returning to the Timekeeping Mode, the vertical ascent value of the current session (920 meters in the above example) is added to the sessions starting ASC value. Also, the vertical descent value of the current session (820 meters in the above example) is added to the sessions starting DSC value. Note that any change in elevation when ascending that is less than 15 meters (49 feet) is not added and the vertical ascent value for the current Altimeter Mode auto measurement session. Also, any change in elevation when descending that is less than 15 meters (49 feet) is not added to the vertical descent value for the current Altimeter Mode auto measurement session.Note The maximum altitude, minimum altitude, vertical ascent, and vertical descent values are retained in memory when you exit the Altimeter Mode. To clear values, perform the procedure under To clear the contents of a speci c memory area.Using Auto Save ValuesThe watch maintains two independent sets of auto save values as shown below.Set 1 Set 2Maximum Altitude (MAX-1)Minimum Altitude (MIN-1)Vertical Ascent (ASC-1)Vertical Descent (DSC-1)Maximum Altitude (MAX-2)Minimum Altitude (MIN-2)Vertical Ascent (ASC-2)Vertical Descent (DSC-2)These values are checked and updated automatically by the watch as altitude auto measurements are taken.How to use Set 1 and Set 2, you can use them to keep track of daily and cumulative data as described in the example below.Example: Keeping track of data on a three-day climbDay 1 Clear both Set 1 and Set 2, and start your Day 1 climb. At the end of the day, both sets of auto save values contain the same data (MAX-1 = MAX-2, MIN-1 = MIN-2, etc.).Day 2Clear only Set 1, and start your Day 2 climb. At the end of the day, the values in Set 1 (MAX-1,MIN-1,ASC-1,DSC-1) will show the results of Day 2 only. In Set 2, MAX-2 and MIN-2 will show the maximum and minimum altitudes reached over the two-day span. ASC-2 will show the total vertical ascent for the two days (Day 1 + Day 2) and DSC-2 will show the total vertical descent for the two days3. day, the values in Set 1 (MAX-1,MIN-1,ASC-1,DSC-1) will show the results of Day 2 only. In Set 2, MAX-2 and MIN-2 will show the maximum and minimum altitudes reached over the three-day span. ASC-2 will show the total vertical ascent for the three days (Day 1 + Day 2 + Day 3) and DSC-2 will show the total vertical descent for the three days.Day 3Clear only Set 1, and start your Day 3 climb. At the end of the day, the values in Set 1 will show the results of Day 3 only. For details about clearing altitude data, see To clear the contents of a speci c memory area.How the Altimeter work?Generally, air pressure and temperature decrease as altitude increases. This watch bases its altitude measurements on the International Standard Atmosphere (ISA) values stipulated by the International Civil Aviation Organization (ICAO). These values de ne relationships between altitude, air pressure, and temperature.0 m2CAltitude Air Pressure TemperatureSource: International Civil Aviation Organization Note that the following conditions will prevent you from obtaining accurate readings:When air pressure changes due to changes in the weatherExtreme temperature changesWhen the watch itself is subjected to strong impactThere are two Standard Atmosphere (ISA) values stipulated by the International Standard Atmosphere (ISA) values stipulated by the International Civil Aviation Organization (ICAO). These values de ne relationships between altitude, air pressure, and temperature.This watch estimates altitude based on air pressure. This means that altitude readings for the same The semiconductor pressure sensor used by the watch for altitude measurements is also affected by Do not rely upon this watch for measuring altitude in applications that demand professional or industrial level Remember that the air inside of a commercial aircraft is pressurized. Because of this, the readings Page 77Specifying Temperature, Barometric Pressure, and Altitude UnitsYou can specify the units for temperature, barometric pressure, and altitude measurements or perform button operations while you diving. Do not use this watch for altitude measurements while sky diving, hang gliding, para gliding, gyrocopter ying, gliding or any other similar activity.Barometer/Thermometer Mode and the Altimeter Mode.Important!WhenTYO (Tokyo) is selected as the Home City, the altitude unit is set automatically to meters (m), the barometric pressure unit to hectopascals (hPa), and the temperature unit to Celsius (C). These settings cannot be changed.To specify temperature, barometric pressure, and altitude units1. In the Timekeeping Mode, hold down E until the currently selected city code starts to ash. This is the city code setting screen. Before the city code starts to ash, the message SET Hold will appear on the display. Keep E depressed until SET Holddisappears and the city code starts to ash.2. Keep pressing D until UNIT appears in the upper left corner of the screen. See step 3 under To change the current time and date settings for information about how to scroll through settings screens.3. Perform the operation below to specify the units you want.To specify this unit: Press this key: To toggle between these settings:Altitude(m (meters) and ft (feet))Barometric Pressure(hPa (hectopascals) and inHg (inches of mercury))Temperature(C (Celsius) and F (Fahrenheit))4. After the settings are the way you want, press E to exit the setting screen.Precautions Concerning Simultaneous Measurement of Altitude and TemperatureWhen you perform altitude and temperature measurements at the same time, you should remember that each of these measurements requires different conditions for best results. With temperature measurement, it is best to remove the watch from your wrist or to enable or eliminate the effects of body heat. In the case of altitude measurement, on the other hand, it is better to leave the watch on your wrist, because doing so keeps the watch at a constant temperature, which contributes to more accurate altitude measurements. To give altitude measurement priority, leave the watch on your wrist or in any other location where it is subject to high temperature. To give temperature measurement priority, remove the watch from your wrist and allow it to hang freely from your bag or in another location where it is not exposed to direct sunlight. Note that removing the watch from your wrist can affect pressure sensor readings momentarily.Viewing Altitude RecordsUse the Data Recall Mode to view manually saved altitude readings and automatically saved high altitude, low altitude, total ascent, and total descent values. Altitude data records are created and saved in the Altimeter Mode.To view altitude records1. Use D to select the Data Recall Mode (REC) as shown in Selecting a Mode. About one second after REC appears on the display, the display will change to show the rst record of the memory area you were viewing when you last exited the Data Recall Mode.2. Use B to select the memory area you want.REC 01(Manually Saved Record Area)(Auto Save Value Area 1)MAX-1(Auto Save Value Area 2)MAX-2.3. Use A and C to scroll through the screens for an area and display the one you want.REC01REC02REC25Manually saved recordsMAX MIN ASC DSCAuto saved values While a manually saved record through REC 25) is displayed, the bottom of the screen will show the date (month, day) and time (hour, minute) the record was created. While MAX or MIN on saved values are displayed, the bottom of the screen will show the date (month, day) and time (hour, minute) the record was created. While ASC or DSC auto saved values are displayed, the value was recorded. While ASC or DSC auto saved values are displayed, the bottom of the screen will show the date (month, day) and time (Hour : Minutes) and measurement date (Month Day)Record nameAltitudeAltitude between measurement time (Hour : Minutes) and measurement date (Month Day)Record nameAltitudeAltitude between measurement time (Hour : Minutes) and measurement date (Month Day)Record nameAltitudeAltitude between measurement time (Hour : Minutes) and measurement date (Month Day)Record nameAltitudeAltitude between measurement time (Hour : Minutes)total ascent (ASC) and total descent (DSC) values will show zero. When the total ascent (ASC) or total descent (DSC) value becomes ve digits, the leftmost (ten thousand) digit will appear in the upper left corner.The nearby illustration shows the display when the ASC-1 value is 99995 meters.To clear the contents of a speci c memory area1. Use D to enter the Data Recall Mode.2. Use B to select the memory area you want to clear. While the contents of the memory area cannot be undone, so double check to make sure you really want to delete the contents of the memory area you select here.3. Hold down E until CLR Hold appears on the display and then disappears. Release E after CLR disappears. This will clear the memory area you selected in step 2 and then return to the data display screen, which now shows - - -.This indicates there is nothing stored in the currently displayed memory area.Looking up Sunrise and Sunset TimesYou can use the Sunrise/Sunset Mode to look up the sunrise and sunset times for a particular date (year, month, day) and location.To enter the Sunrise/Sunset Mode1. Use D to enter the Sunrise/Sunset Mode. This will display the sunrise and sunset times for the current date based the currently speci ed city code, latitude, and longitude. The three Daylight Pointers described below are on the display in the Sunrise/Sunset Mode.Pointer 1: Sunset time in 24-hour formatPointer 2: Sunset time in 24-hour formatPointer 3: This ashing pointer appears only when Pointer 1 and Pointer 2 are indicating the sunrise time for sunset times for the current Timekeeping Mode date. It indicates the current Timekeeping Mode date in 24-hour format. Before trying to use con gure settings for the city code, longitude, and latitude for the location where sunrise and sunset times you want to view. The factory default con guration of the location is: City Code: TYO(Tokyo): Latitude: North 36 degrees; Longitude: East 140 degrees. You can tell whether sunrise and sunset times you are viewing are for a particular date1. Enter the Sunrise/Sunset Mode.2. While the sunrise/sunset time are on the display, use A (+) and C () to scroll through the dates. The sunrise and sunset times for the selected date will be indicated by values and pointers. You can select any date between January 1, 2000 and December 31, 2099.Note Sunrise/sunset time is displayed in 5-minute units.If that the sunrise and/or sunset times are not correct for some reason, check the watchs city code, longitude and latitude settings. The sunrise and sunset times displayed by this watch are different is altitude is even other than sea level.To look up the sunrise and sunset times for a speci c city codeImportant! You do not perform this procedure to look up the sunrise and sunset times a for a specific city location) when you are nished. Otherwise, the time shown in the Timekeeping Mode will not be correct. For information about the Home City setting, see Con guring Home City Settings.1. In the Timekeeping Mode, hold down E until the currently selected city code starts to ash. This is the city code setting screen. Before the city code starts to ash, the message SET Hold will appear on the display. Keep E depressed until SET Hold disappears and the city code starts to ash.2. Use A (East) and C (West) to select the city code whose sunrise and sunset times you want to view. For details about city codes, see the City Code Table.3. Press E twice to exit the setting screen.To con gure the sunrise and sunset location1. Use D to enter the Sunrise/Sunset Mode. Use A and C to scroll through the dates. The sunrise and sunset times for the selected date will be indicated by values and pointers. You can select any date between January 1, 2000 and December 31, 2099.digitCurrentdatePointer 3Pointer 2SunrisetimeSunsettimePointer 1CurrentdatePointer 2SunrisetimeSunsettimePointer 1DateSunset time Sunrise timePage 88E Before the city code starts to ash, the message SET HoldEDACEUseDWTWTACACEESaving Time (DST indicator displayed) and standard time indicator displayedDSTsaving time while UTC is selected as the World Time UseDSTWSTWAAA ACStart Stop (Restart) (Stop) ResetACC ACStart Split(SPL displayed)Split release Stop ResetACA ACStart SplitFirst runner nishes.Display time of rst runnerStopSecond runner nishes.Split releaseStop ResetACE HoldEEDACEUseDWTWTACACEESaving Time (DST indicator displayed) and standard time indicator displayedselectedWorld Time (2Current)Timekeeping)Mode timeDST indicatorDST indicatorHours1/100 secondSecondsMinutesCurrenttimeUseDTMRTMRACCE Before the hour setting starts to ash, the message SET HoldEDAC To set the starting value of the countdown time to 24 hours, set 0H0000.EAAA ACStart Stop (Restart) (Stop) Reset Before starting a countdown timer operation, check to make sure that a countdown operation is not in ACAn alarm sounds for ve seconds when the end of the countdown is reached. This alarm will sound in UseDLALMALMAL1AL5SIGSIGACALAE Before the alarm time starts to ash, the message SET HoldEDAC When setting the alarm time using the 12-hour format, take care to set the time correctly as a.m. (no EAACBCurrent timeCountdown timer timeCurrent timeCountdown time (Hour, minutes, seconds)Alarmnumber or SIGAlarm time (Hour : Minutes)Current timeAlarm ON/OFF indicatorAlarm ON/OFF indicatorAlarm 3173Module 3246Hourly time signal on indicatorAlarm on indicator3173Module 3246Hourly time signal on indicatorAlarm on indicator9Illumination The display and the face of the watch glow when you press L. The watchs auto light switch does not operate automatically when you angle the watch towards your face. The auto light switch must be turned on for it to operate.To turn on illumination manuallyPress L in any mode to illuminate the display. You can use the procedure below to select either one illuminated for about one second or three seconds, depending on the current illumination duration setting. The auto light operation turns on illumination regardless of the current auto light switch setting. Illumination is disabled while con guring settings, and during bearing sensor calibration.To change the illumination duration1. In the Timekeeping Mode, hold down E until the currently selected city code starts to ash. This is the city code setting screen. Before the city code starts to ash, the message SET Hold will appear on the display. Keep E depressed until SET Hold disappears and the city code starts to ash.2. See step 3 under To change the current time and date settings for information about how to scroll through settings screens.3. PressA to toggle the illumination duration between three seconds (LT3 displayed) and one second (LT1 displayed).4. After the settings are the way you want, press E to exit the setting screen.Note The mute indicator is displayed in all modes when the button operation tone is turned off.TroubleshootingTime Setting The current time setting is off by one hour.You may need to upper left corner of the display. See step 3 under To change the current time and date settings for how toAbout Auto Light SwitchTurn on the auto light switch when you want the auto light switch to operate automatically when you angle the watch towards your face. The auto light switch must be turned on for it to operate.To turn the auto light switch on and off1. In the Timekeeping Mode, hold down E until the currently selected city code starts to ash. This is the city code setting screen. Before the city code starts to ash, the message SET Hold will appear on the display. Keep E depressed until SET Hold disappears and the city code starts to ash.2. See step 3 under To change the current time and date settings.3. PressA to toggle the illumination on (A.EL displayed) and off (A.EL not displayed). The auto light switch is indicated by (A.EL).4. After the settings are the way you want, press E to exit the setting screen.Note To keep the illumination on for about two seconds, keep the auto light switch turned off for it. The electro-luminescent panel that provides illumination loses power over very long use. Illumination may be hard to see when viewed under direct sunlight. Illumination turns off automatically whenever an alarm sounds. Frequent use of illumination runs down the battery.Auto light switch precautions Wearing the watch on the inside of your wrist, movement of your arm, or vibration of your wrist may cause illumination to turn on. To avoid running down the battery, remove the watch from your wrist when engaging in any activity that can cause frequent illumination to light. Illumination may not turn on if the face of the watch is more than 15 degrees above or below parallel. Make sure that the back of your hand is parallel to the ground. Illumination turns off after the preset illumination duration, even if you keep the watch pointed towards your face. Static electricity or magnetic force can interfere with proper operation of the auto light switch. If illumination does not turn on, try moving the watch back to the starting position (parallel with the ground) and then tilt it back towards your face again. If this does not work, drop your arm all the way down so it hangs at your side, and then bring it back up again. You may notice a very faint clicking sound coming from the watch when it is shaken back and forth. This sound is caused by mechanical operation of the auto light switch, and does not indicate a problem with the watch.More than 40Wear the watch on the outside of your wristMake sure your wrist is parallel with the ground. Then move the watch towards your face by turning your wrist through an angle of about 40 degrees, as shown in the gure. Do not wear the watch on the outside of your wristAuto light switch onAuto light switch onAuto light switch off or on at the leftmost Even if you turn off the auto light switch, the alarm, Hourly Time Signal, and Countdown Timer Mode alarm all operate normally.To turn the button operation tone on and off1. In the Timekeeping Mode, hold down E until the currently selected city code starts to ash. This is the city code setting screen. Before the city code starts to ash, the message SET Hold will appear on the display. Keep E depressed until SET Hold disappears and the city code starts to ash.2. Keep pressing D until LT1 or LT3 is displayed in the upper left corner of the screen. See step 3 under To change the current time and date settings for information about how to scroll through settings screens.3.PressA to toggle the button operation tone on (KEY) and off (MUTE).4. After the settings are the way you want, press E twice to exit the setting screen.Note The mute indicator is displayed in all modes when the button operation tone is turned off.TroubleshootingTime Setting The current time setting is off by one hour.You may need to change your Home Citys standard time/daylight saving time (DST) setting. Use the procedure under To change the current time and date settings to change the standard time/daylight saving time (DST) setting.Sensor modes I cant change the temperature, barometric pressure, and altitude units.WhenTYO (Tokyo) is selected as the Home City, the

altitude unit is set automatically to meters (m), the barometric pressure unit to hectopascals (hPa), and the temperature unit to Celsius (C). These settings cannot be changed. ERR appears on the display while I am using a sensor .Subjecting the watch to strong impact can cause sensor malfunction or improper contact of internal circuitry. When this happens, ERR (error) will appear on the display and sensor operations will be disabled.DigitalCompassMeasurementBarometricPressure/TemperatureMeasurementAltitudeMeasurement If ERR appears while a measurement operation is being performed in a sensor mode, restart the measurement. IfERR appears on the display again, it can mean there is something wrong with the sensor.Even if battery power is at Level 1 (H) or Level 2 (M), the Digital Compass Mode, Barometer/Thermometer Mode, or Altimeter Mode sensor may be disabled if there is not enough voltage available to power it suf ciently. In this case, ERR will appear on the display. This does not indicate malfunction, and sensor operation should resume once battery voltage returns to its normal level. If ERR keeps appearing during measurement, it could mean there is a problem with the applicable sensor. ERR appears on the display after I perform bidirectional calibration or northerly calibration.If- - appears and then changes to ERR (error) on the calibration screen, it means that there is something wrong with the sensor. If ERR disappears after about one second, try performing the calibration again. If ERR keeps appearing, contact your original dealer or nearest authorized CASIO distributor to have the watch checked. ERR appears on the display after I perform northerly calibration.TheERR message indicates there may be some problem with the sensor. The ERR message also may be due to movement of the watch while the calibration procedure is being performed. Try performing calibration again, taking care to ensure that the watch is not moved.If this does not solve the problem, the problem may be due to some nearby source of terrestrial magnetism. Try performing the calibration procedure again from the beginning.Whenever you have a sensor malfunction, take the watch to your original dealer or nearest authorized CASIO distributor as soon as possible. What causes incorrect direction readings? Incorrect bidirectional calibration. Perform bidirectional calibration. Nearby source of strong magnetism, such as a household appliance, a large steel bridge, a steel beam, overhead wires, etc., or an attempt to perform direction measurement on a train, boat, etc. Move away from large metal objects and try again. Note that digital compass operation cannot be performed inside a train, boat, etc. What causes different direction readings to produce different results at the same location?Magnetism generated by nearby high-tension wires is interfering with detection of terrestrial magnetism. Move away from the high-tension wires and try again. Why am I having problems taking direction readings indoors?A TV, personal computer, speakers, or some other object is interfering with terrestrial magnetism readings. Move away from the object causing the interference or take the direction reading outdoors. Indoor direction readings are particularly dif cult inside ferro-concrete structures. Remember that you will not be able to take direction readings inside of trains, airplanes, etc. The barometric pressure differential pointer does not appear on the display when I enter the Barometer/Thermometer Mode. This could indicate sensor error. Try pressing B again. The barometric pressure differential pointer is not displayed when the displayed current barometric value is outside of the allowable measurement range (260 to 1,100 hPa).World Time Mode The time for my World Time City is off in the World Time Mode.This could be due to incorrect switching between standard time and daylight saving time. See To specify standard time or daylight saving time (DST) for a city for more information.Charging The watch does not resume operation after I expose it to light.This can happen after the power level drops to Level 5. Continue exposing the watch to light until the battery power indicator shows H or M.llllllllllllllllllllllllllllMute indicatorModule 3173Module 3246Mute indicatorModule 3173Module 3246Page 1010005200)005 or 200) Precision is lessened by strong impact to either the watch or the sensor, and by temperature extremes.SiteSite8764FEN2UTC+1+3+8+9+10 Pressing this button in the Timekeeping Mode cycles between displays. Each press cycles between watch modes. In any mode, hold down this button for at least two seconds to return to the Timekeeping Mode. Press to turn on illumination. Pressing this button in the Timekeeping Mode enters the Compass Mode. Pressing this button in the Timekeeping Mode enters the Altimeter Mode. Pressing this button in the Timekeeping Mode enters the Barometer/Temperature Mode.

Changing time on casio pro trek. Casio pro-trek prg-30. How do you change the time on a casio pro trek. Casio tough solar set time. Casio pro trek solar. Casio pro trek change time zone.

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