CASIO®

EN

WSD-F10/ WSD-F20/ WSD-F20S/ WSD-F20X/ WSD-F20SC/ WSD-F20A

User's Guide

Thank you for purchasing this watch.
Before trying to use this watch, be sure to read the Safety Precautions in the Quick Start Guide that comes with it. Make sure you use the watch correctly.

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Introduction

Attention WSD-F10 Owners!

- This manual describes operations for a WSD-F10 watch that has been updated to Wear OS by Google™. For information about updating to Wear OS by Google, visit the website below.
  https://support.google.com/wearos/
- The functions below, which are described in this manual, are not supported by the WSD-F10.
  - Built-in GPS
  - Some Activity app functions (Paddle, Snow)
  - Activity app's History & Export functions
  - Some watch faces (Location, Traveler)
  - Location Memory app
- The WSD-F10 acquires location information from a phone. Be sure to use it while connected with a paired phone.

Attention iPhone Owners!

- When using this watch while it is paired with an iPhone, be sure to have the Wear OS by Google app running on the iPhone. If the Wear OS by Google app is not running, functions that require communication with the iPhone will not operate.
- Some watch functions are restricted when it is paired with an iPhone. For details, visit the website below.
  http://support.casio.com/wsd/

Watch Features

Powered with Wear OS by Google

Google, Android, Wear OS by Google, Google Play and other related marks and logos are trademarks of Google LLC.

Wear OS by Google works with phones running Android™ 4.4+ (excluding Go edition) or iOS 10+*1. Supported features may vary between platforms and countries.

*1 Recommended. However, a WSD-F10, F20, F20S, or F20X watch that is already paired with a smartphone running Android 4.3+ or iOS 9+ can also be used.

Five-atmosphere Water Resistance + MIL-STD*2

Even though this watch has a built-in voice recognition microphone, it still is water resistant up to five atmospheres. This means you can wear your watch while swimming, fishing, etc. MIL-STD-810G standard environment resistance allows you to wear your watch while engaged in a variety of vigorous outdoor activities, including: mountain climbing, cycle sports, fishing, and more.

*2 United States Department of Defense Military Standard

Built-in GPS (WSD-F20 series only)

This watch has GPS*3 built in, and you can acquire location information without connecting with a phone. The watch itself can display a map*4 of your current location, measure and record data for a variety of activities, and more.

*3 In addition to GPS (U.S.), your watch also supports GLONASS (Russia) and QZSS (Japan) positioning. This manual uses “GPS” to refer to all of the above positioning systems.

*4 To display the map when you do not have a smartphone, you need to have the map data downloaded beforehand.

Dual-layer LCD for Improved Readability

CASIO app operations are designed to use either the color or the monochrome LCD. The monochrome LCD makes display contents easier to read when outdoors under sunlight.

Three Side Buttons Designed for Sure Operation

The three side buttons are designed for sure operation even when outdoors. Apps can be freely assigned to the TOOL button and the APP button.

CASIO MOMENT SETTER+ App for Smartphone Control of the Watch

A CASIO MOMENT SETTER+ smartphone app (available from Google Play™ for Android smartphones only) can be used to customize the watch setup (MOMENT SETTER notifications, TOOL app functions, etc.) from your smartphone.

CASIO Camera Linking

Use this app to control supported CASIO camera models from the watch. For details, visit the CASIO website below.
http://support.casio.com/wsd/

Measurement Functions

Your watch can take barometric pressure, altitude, bearing, and other readings. Its built-in watch faces and applications can use readings for display and other useful functions. Note that this watch is not a special purpose measuring instrument. Readings produced by measurement functions are intended as general reference information only.

Compass (Bearing Measurement)

For serious mountain climbing and other activities that require accurate bearing readings, take along a highly reliable compass to use in combination with the watch's compass.

Important!

- Note that accurate compass readings and/or correction will not be possible in the areas described below.
  - In the vicinity of a permanent magnet (magnetic accessory, etc.), metal objects, high-voltage wires, aerial wires, or electrical household appliances (TV, computer, cellphone, etc.)
  - In motor vehicles, on boats, on aircraft, etc.
  - Indoors, especially inside of reinforced concrete structures.

Altimeter, Barometer

The watch's Altimeter uses a pressure sensor to measure barometric pressure, and then calculates and displays relative altitude based on the measured value. Because of this, readings taken at different times at the same location may produce different altitude values due to changes in temperature, humidity, barometric pressure, and other factors. Also note that values displayed by the watch may be different from elevations indicated for areas where you are located. When using the watch's altimeter while mountain climbing, it is recommended that you perform regular correction in accordance with the local altitude (elevation) indications.

Tide Graph (Graphic Display of Tide Information)

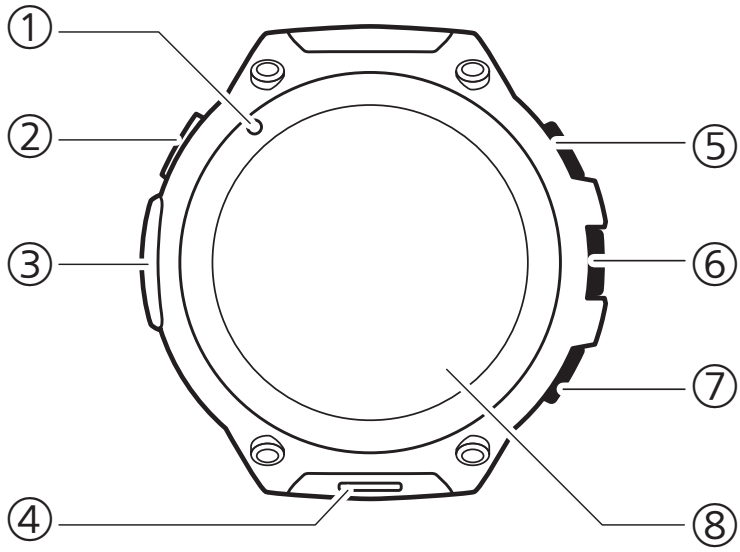
The Tide Graph feature of your watch is intended to provide a rough image of current tide conditions. Do not use its tide information for navigation purposes. For navigation purposes, be sure to use official tide charts issued by a reliable agency or authority for the area you are navigating.

Overview

Package Contents

Watch, AC adaptor, charger cable, Quick Start Guide, warranty, cloth band/ band replacement tool (WSD-F20X only)

General Guide



① Charge LED

② Charger terminal

③ Pressure sensor

④ Microphone

⑤ TOOL button

⑥ Power button

⑦ APP button

⑧ Touch screen

About This Manual

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- The watch and sample screens depicted in the illustrations in this manual may be different from the actual appearance of the watch.

Getting Ready

Be sure to read the precautions in the “Quick Start Guide”, and also perform all of the steps under “Preparing the Watch for First Use” and “Preparing the Watch for Outdoor Use”.

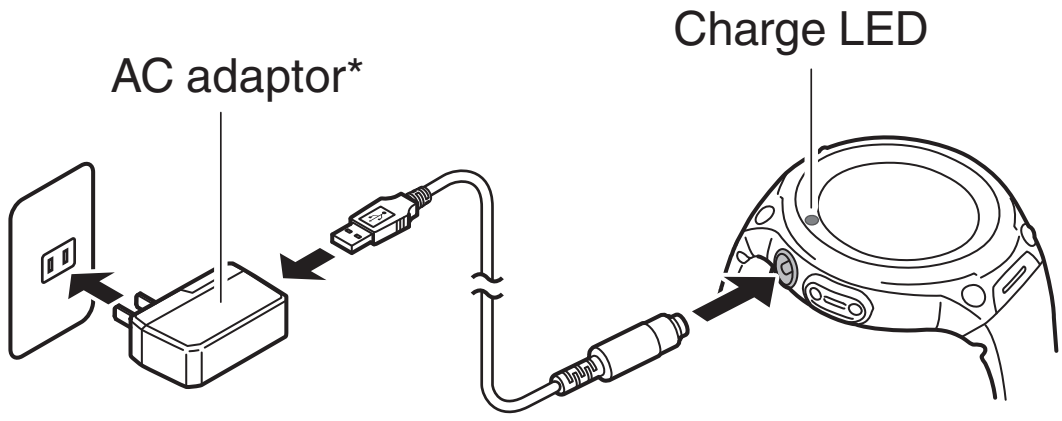
Preparing the Watch for First Use

You must perform the steps below before using the watch for the first time.

1. Charge the watch

Plug the provided AC adaptor into a power outlet, and then connect the provided charger cable and AC adaptor as shown in the illustration.

- The charge LED lights red during charging, and green when a full charge is achieved.
- The watch will turn on automatically when the charge reaches a certain level.



* The shape of the AC adaptor supplied in your geographic area may be different from the one shown in the illustration.

Important!

- To help promote longer battery life, regular charging of the watch (about once a month) is recommended even if you do not use it for a long time.

2. Install the Wear OS by Google App on a Smartphone

Android smartphone: Download the Wear OS by Google app on Google Play.
iPhone: Download the Wear OS by Google app from the App Store.

3. Pair the Watch with Your Smartphone

When pairing, it is recommended that you have the smartphone and watch within one meter of each other. Refer to the websites below for information about how to pair the watch with a smartphone.

Wear OS by Google Help
https://support.google.com/wearos/

CASIO website
http://support.casio.com/wsd/

4. Install the CASIO MOMENT SETTER+ App on the Smartphone (Android Only)

If you are using an Android smartphone, download the “CASIO MOMENT SETTER+” app from Google Play and install it. You can use the CASIO MOMENT SETTER+ app to configure the following watch settings from your smartphone: TOOL App, MOMENT SETTER App.

Important!

- There are two versions of the CASIO MOMENT SETTER+ app. Make sure you have the latest version installed on your phone. Icons shown on Google Play indicate whether the app is the old version or new version.

Old version icon

New version icon

- In order to use all of the functionality provided by this watch, be sure to update all of your related CASIO apps to their latest versions before using your watch. For information about the update procedure, visit the website below.
http://support.casio.com/wsd/

Preparing the Watch for Outdoor Use

Performing the steps below prepares the watch's outdoor functions (CASIO watch faces and apps) for optimal operation. Perform these steps after you have completed the procedure under "Preparing the Watch for First Use".

1. Configure watch settings to enable use of Play Store.

1. If you are using the watch while it is connected with an iPhone, connect the iPhone to Wi-Fi.
2. While a watch face is displayed, short press the power button to display the App menu.
3. Scroll the list of apps upwards or downwards until "Play Store" is displayed, and then tap it.
   - This will give you access to Play Store. Install the app you want to try.

2. Update your CASIO apps to their latest versions.

1. On the app menu, tap "Play Store".
2. Select "Apps on your watch" to display a list of the apps currently installed on your watch.
   - If the previous option is not available, swipe from top to bottom to open Play Store menu. Tap the "My Apps" icon.
3. Apps for which updates are available will be shown under "Updates". If there is an update available for CASIO MOMENT SETTER+, be sure to update it.

3. Configure the location settings of the watch and smartphone.

A WSD-F20 series watch can acquire location information on their own or from a smartphone. The WSD-F10 gets location information from a phone.

Watch Operation (WSD-F20 series)

1. While the watch face is displayed, swipe the touch screen from top to bottom and then tap ⚙.
2. Scroll downwards and tap “Connectivity” and then “Location”.
3. On the screen that appears, enable “Location”.

Watch Operation (WSD-F10)

1. While the watch face is displayed, swipe the touch screen from top to bottom and then tap ⚙.
2. Scroll the screen downwards, and then tap “Connectivity”.
3. Scroll the screen downwards until “Location” appears, and then turn it on.

Smartphone Operation

Go to “Settings” and turn on “Location”. Next, select “High Accuracy” mode. If your smartphone does not have “High Accuracy” setting, turn on its GPS, Wi-Fi, and mobile network (data communication) settings.

The settings in the steps below are required to enable the following functions: CASIO watch faces, the Location Memory app, the TOOL app, the Activity app, and all functions of the MOMENT SETTER app.

4. Enable the CASIO MOMENT SETTER+“Permissions” setting.

1. While the watch face is displayed, swipe the touch screen from top to bottom and then tap ⚙.
2. Scroll the screen downwards, and then tap in the following sequence: “Apps & notifications”, “App permissions”, “System Apps”, “CASIO MOMENT SETTER+”.
3. Tap the items that appear on the display (“Calendar”, “Microphone”, “Location”, etc.) and enable all of them.

5. Turn on the “Save daily activity records” setting.

1. While the watch face (Authentic, Field, Multi) is displayed, hold your finger on the touch screen for about two seconds. This displays the setting menu.
2. Scroll the setting menu downwards. When “Save daily activity records” is displayed, check to make sure that its setting is “OFF”. Next, tap the setting.
   - A dialog box will appear to confirm if you want to save activity records. Carefully read the text of the dialog box.
3. Tap “I agree.”.
   - This changes the “Save daily activity records” setting to “ON”.

6. Turn on the “Save Daily Location Info” setting (WSD-F20 series only).

1. While the watch face (Location or Traveler) is displayed, hold your finger on the touch screen for about two seconds to display the setting menu.
2. Scroll the setting menu downwards. When “Save Daily Location Info” is displayed, check to make sure that its setting is “OFF”. Next, tap the setting.
   - A dialog box will appear to confirm if you want to save location information. Carefully read the text of the dialog box.
3. Tap “Every 6 minutes” or “Every 1 minute”.
   - This changes the “Save Daily Location Info” setting to “ON”.
   - Note that selecting “Every 1 minute” will cause a large amount of power to be consumed.

Basic Operations You Should Remember

Important!

- Note that the operations described here are subject to change due to the type and version of the operating system being used by the smartphone connected with the watch, changes that occur when the watch's operating system is updated, and other factors. For details about Wear OS by Google operations, visit the website below.
  https://support.google.com/wearos/

Button Functions

Power button	• Press to restore display brightness after it goes dark. • Pressing while a watch face is displayed will display the App menu (app list for launching apps). • If watch power is off, hold down the power button for at least two seconds to turn the watch on.
TOOL button (Top right)	• Pressing while a watch face is displayed starts up a previously specified app (TOOL under initial default settings). • Each press of this button while TOOL is displayed switches between TOOL functions.
APP button (Bottom right)	Pressing while a watch face is displayed starts up a previously specified app*1.

*1 Under WSD-F20 series watch initial default settings, starts up Location Memory. Under WSD-F10 initial default settings, there is no app assigned to this button.

Note

- Visit the website below for information about changing the apps that are started up by pressing the TOOL button and APP button.
  https://support.google.com/wearos/

Wake Up

If you don't tap the touch screen for a few seconds, the watch screen will dim. To wake up the watch and restore it to normal brightness, tap the touch screen or press the power button.

Power Supply Operations

To do this:	Perform this operation:
Charge the watch	See step 1 under "Preparing the Watch for First Use".
Turn off power	1. While the watch face is displayed, swipe the touch screen from top to bottom and then tap ⚙. 2. Scroll the screen downwards. Tap "System" and then "Power off" in sequence. On the confirmation screen that appears, tap ✓ .
Turn on power	Hold down the power button for about two seconds, or start charging the watch. The watch will turn on automatically when the charge reaches a certain level.

Watch Face Operations

To do this:	Perform this operation:
Switch to another watch face	1. While a watch face is displayed, swipe the touch screen slightly left or right to display a list of favorite watch faces. 2. Scroll a list of favorite watch faces left and right. When the watch face you want to use is displayed, tap it.
Add a watch face to favorites	1. Scroll a list of favorite watch faces as far as it will go to the right and then tap “Add more watch faces”. This displays a list of all watch faces. 2. Scroll the list of all watch faces upwards and downwards. When the watch face you want to add to favorites is displayed, tap it.
Remove a watch face from favorites	On a list of favorite watch faces, swipe upwards on the watch face you want to remove.

Favorite watch faces

Your watch has a wide selection of watch faces built in. You can add the ones you most often use to a list of favorite watch faces for easier selection when you need them.

Note

- For details about watch face operations, visit the website below.
  https://support.google.com/wearos/
- For information about CASIO watch faces, see “Using CASIO Watch Faces”.

Using Apps

To do this:	Perform this operation:
Start up an app	1. While a watch face is displayed, short press the power button to display the App menu. 2. Scroll the list of apps upwards or downwards. When the app you want to run is displayed, tap it.
Return to the watch face	Press the power button.

Using a Specific App

- For information about the TOOL, Activity, MOMENT SETTER, Location Memory (WSD-F20 series only), and Timepiece apps, see "Using Outdoor Watch Functions - Using CASIO Watch Faces and Apps".
- For details about EXILIM Controller and G'z EYE Controller, visit the website below.
  http://support.casio.com/wsd/
- For details about Google™ apps (standard Wear OS by Google apps), visit the website below.
  https://support.google.com/wearos/
- For information about third-party apps, refer to the website, user documentation, and other information provided by the developer.

Wear OS by Google Functions

The Wear OS by Google operating system of this watch provides the functions below as standard.

- Dictation
- Messaging and incoming phone call notification
- Timer, Agenda, Translate and other standard Wear OS by Google apps
- Watch faces and apps can be added using the Play Store app*
- Wear OS by Google Settings

* Your watch comes with a built-in Play Store app that you can use to add watch faces and apps using watch operations only (without a smartphone).

For details, visit the websites below.
https://support.google.com/wearos/

Smartphone Dependent Functions

Though you can use a wide range of functions without connecting to a smartphone, some apps and services (dictation, smartphone related apps, etc.) are not available unless there is a connection between the watch and a smartphone. For details, visit the websites below.
https://support.google.com/wearos/
http://support.casio.com/wsd/

Using Outdoor Watch Functions - Using CASIO Watch Faces and Apps

This section explains how to interpret the contents of CASIO watch faces and how to use CASIO apps and make your outdoor adventures more interesting and enjoyable.

Use this app:	To do this:
Location Memory (WSD-F20 series only)	Check your current location on a color map.
TOOL	Find out more about the natural environment around you.
Activity	Keep track of current information about your activities.
MOMENT SETTER	Get useful notifications when they really matter.
Timepiece	Save power by limiting watch function to timekeeping display only.

Important!

- In order to get the very best out of the outdoor functions of your watch, be sure to perform the operation under "Preparing the Watch for Outdoor Use" before using them.
- Speeds and distances displayed by the Location Memory (WSD-F20 series only), Activity, and TOOL apps are values measured by the watch's or your smartphone's GPS function. This means displayed values may not be exact due to GPS reception conditions and position sensing error.

Using CASIO Watch Faces

Your watch comes with the CASIO Watch Faces described below built in. Watch face names are used in the list of favorite watch faces and the list of all watch faces (see "Watch Face Operations").

Journey*1	Analog watch face that shows a map of your current location. The watch will display up to three events saved to Google Calendar™. Tapping an event displays a map to its location.
Place*1	Analog watch face that can be linked with Google Calendar so the locations of specific scheduled events appear as the background image. A map of your current location is shown if there is no event specified.
Location*1	Analog watch face that shows your current latitude and longitude based on the watch's GPS, along with a background image of a world map centered on your current location.
Traveler*1	Analog watch face that shows useful information about your travel destination, etc. Each tap of the dial at 10 o'clock changes the information displayed at the bottom of the watch screen.
2 Layers	Digital watch face that combines easy-to-read monochrome LCD and a color LCD.
Authentic	Simple analog watch face. In addition to a fixed 24-hour time dial, there are two more dials whose contents can be changed by tapping them.
World Time	Digital watch face that shows the date, time, and city name (time zone name) in your current location, the time offset between your current location and your home city time, and the current date, time, and city name (time zone name) of your home city.
Altitude	Digital watch face that shows the high altitude recorded in watch memory, the current altitude, and a graph of the past 24 hours of altitude changes.
Field	Casual analog watch face with two dials whose content can be changed by tapping them.
Multi	Casual digital watch face with three dials whose content can be changed by tapping them.
Combination	Analog watch face that shows a graph of altitude changes over the past 24 hours, the current barometric pressure and altitude, and the high altitude reading stored in watch memory.

*1 WSD-F20 series only

Important!

- Whenever the watch's battery charge level is less than 5%, the watch will automatically switch to the monochrome LCD watch face when screen illumination dims after the prescribed period of non-use. To switch to the original watch face, tap the touch screen.

If the message "Perform magnetization correction." appears...

The "Perform magnetization correction." notification may appear while you are using a watch face that includes a compass.

To calibrate the compass, tap the notification and then tap ⚙. Move the watch around as shown in the animation that appears on the watch display.

If you feel that altitude, barometric pressure, or other readings are not correct...

Perform the operation required to calibrate the readings you feel are incorrect. See "Common Outdoor Function Settings" and perform one or more of the operations below.

To calibrate this:	See the information here:
Barometer	"Barometric Pressure Calibration"
Altimeter	"Altitude Calibration", "Correct Altitude Using Location*1"
Compass	"Compass Calibration", "Compass Magnetic Declination Calibration"

*1 This setting is not available while there is a connection between the WSD-F10 and your iPhone.

Changing CASIO Watch Face Settings

See "Common Outdoor Function Settings".

Using the Location Memory App (WSD-F20 series only)

The Location Memory app makes it quick and easy to record map-related information. You can use the Location Memory app to perform the operations described below.

- Display a map to check your current location.
- Select from a variety of different map skins including street view, geographic view, satellite view, and more.
- While the app is running, you can track your route on the map.
- Use dictation to create a text memo about your current location.
- Use marks to leave quick memos or when a network connection is not available.
- Use “Revisit” marks to record a memo and have the watch alert you with a notification and navigation instructions back to the marked point whenever you are in the vicinity.

Location Memory App Basic Operations

You can perform main Location Memory app operations using the TOOL button and APP button. The operations you can perform with these two buttons are indicated by on-screen icons displayed to the left of each button. You can also perform the operations by tapping the icons.

Icon	Pressing the button or tapping the icon does this:
	Changes the functions of the two buttons to zoom in and zoom out (see below).
	Changes the functions of the two buttons to mark and dictation (see below).
	Zooms in on the map.
	Zooms out from the map.
	Records a memo with a mark.
	Records a dictated memo.

“Revisit” Marks

Use “Revisit” marks to record a memo and have the watch alert you with a notification whenever you are in the vicinity (within 5 km under initial default settings). For information about changing the notification distance setting and disabling notification, see “Changing the “Revisit” Mark Notification Setting”.

Important!

- In order to be able to receive notifications triggered by “Revisit” marks, your Android phone must have the CASIO MOMENT SETTER+ app installed, and there must be a connection between the phone and watch.
- Note that notification receipt triggered by “Revisit” marks is not supported when the watch is connected with an iPhone.
- You can have up to 50 “Revisit” marks registered at one time. Adding a new Revisit mark while there are already 50 marks in memory will delete the oldest one in memory to make room for the new one.

Other Operations

- To view a recorded memo, swipe the displayed map from bottom to top. On the menu that appears, tap “History”.
- For information about how to track your route on a map, see “Enabling Route Tracking on the Map (Route Display)”.
- For information about map display settings, see “Common Outdoor Function Settings” and perform one or more of the operations below.
  - To switch the map between Google Maps™ and Mapbox: Map Type
  - To change the map skin to geographic view or satellite view: Map Skin
  - To download a Mapbox map: Download Map

Location Memory App Settings

This section explains settings that are particular to the Location Memory app (“Route Display” and “Revisit”). For information about other setting items, see “Common Outdoor Function Settings”.

Enabling Route Tracking on the Map (Route Display)

While the app is running, your route can be tracked on the map.

Your route is normally displayed as a blue line. However, the portion of your route where you performed an Activity app measurement operation is indicated by a red line.

To display your route, use the procedure below to change “Route Display” on the setting menu from “OFF” (initial default setting) to “ON”.

1. **While the map is displayed, swipe the touch screen from bottom to top. On the menu that appears, tap “Settings”.**
2. **Scroll the setting menu downwards. After confirming that the “Route Display” setting is “OFF”, tap to change it to “ON”.**

Important!

- This watch acquires location information at regular intervals and tracks your route on a map. To conserve battery power, the frequency of GPS information acquisition is normally low. Because of this, the route tracking displayed while you are traveling by car, train, or other higher speed mode of transportation may appear rather rough. Very high-speed transportation may make it impossible to obtain GPS information and display route correctly.
- If you want smoother route display, start a data measurement operation with the Activity app. GPS information is acquired more frequently during an Activity app data measurement operation, so this will make the route display smoother.
- The watch saves route information, marks, memos, and other data in internal storage. Data is retained as long as memory capacity is available. When memory becomes full, the watch automatically deletes the oldest data to make room for newly recorded data.

Changing the “Revisit” Mark Notification Setting

Use “Revisit” marks to record a mark and have the watch alert you whenever you are in the vicinity. Under the watch’s initial default settings, notification is performed when both of the conditions below are satisfied.

- You are <<within five kilometers>> of the “Revisit” mark location.
- <<At least one day>> has passed since you were last <<within one kilometer>> of the “Revisit” mark location.

The parts of the above conditions enclosed in double angle brackets (<< >>) can be specified by you. You can also disable notifications, if you want. You can use the steps below to configure settings.

1. **While the map is displayed, swipe the touch screen from bottom to top. On the menu that appears, tap “Settings”.**
2. **Scroll the setting menu downwards. When “Revisit” is displayed, tap it.**
3. **On the screen that appears, configure the required settings.**
   - Perform the steps below to modify notification conditions.

   1. If the “Notifications” setting is “OFF”, tap to change it to “ON”.
   2. Tap “Region”. On the list that appears, tap the distance you want to specify.
   3. Tap “Notification Control”. On the list that appears, tap the interval you want to specify.

   - To disable notification, tap “Notifications” to change its setting to “OFF”.

Viewing Your Route on a Phone

You can perform the procedure below to export a route stored in watch memory and view it on a phone using Google Earth™, etc. Note that your phone needs to have “Google Drive™” and “Google Earth” installed in order to perform this procedure.

1. **While the map is displayed, swipe the touch screen from bottom to top. On the menu that appears, tap “Settings”.**
2. **Scroll the setting menu downwards. Tap “Export” and then “Output as KML file” in sequence.**
   - If this is the first time for you to perform this operation, an account selection screen will appear. The KML file will be stored on Google Drive, so select your Google account.
3. **Select the date of the route you want to export.**
   - This will start export. Do not perform any operation on the watch until the export is complete.
   - The exported KML file will be stored on your Google Drive in a folder named “CASIO-WSD”.

Using the TOOL App

The TOOL app displays a wide variety of information about the natural environment around the watch.

TOOL Function List

Compass	Shows a compass needle on the face.
Altimeter	Two color screens are available. An Altimeter Screen (①) that shows a value and dial indication of the altitude at your current location, and an Altitude Graph Screen (②) that shows a graph of altitude changes over the past 24 hours.
Barometer	Two color screens are available. A Barometer Screen (①) that shows a value and dial indication of the barometric pressure at your current location, and a Barometric Pressure Graph Screen (②) that shows a graph of barometric pressure changes over the past 24 hours.
Sunrise/sunset	Two color screens are available. A Time Screen (①) that shows details of the sunrise and sunset times at your current location, and an Azimuth Screen (②) that shows the sunrise and sunset times and azimuths.
Tide Graph	Two color screens are available. A Tide Graph Screen (①) that shows a Tide Graph of a preset point (port), and a Fishing Time Screen (②) that shows recommended fishing times for an ocean or river in the vicinity of your current location.
My Graph	Graphically represents the amount of time during the current date spend engaging in the following activities: resting, walking, running, riding.

To do this:	Perform this operation:
Change the TOOL function	• While the TOOL app is running, press the TOOL button. • While the TOOL app is running, swipe the touch screen from top to bottom, or from bottom to top.
Switch between the two color screens (① and ②) (See "TOOL Function List".)	To switch from screen ① to screen ②, swipe the touch screen from right to left. To switch from screen ② to screen ①, swipe the touch screen from left to right.
Change TOOL app settings	See "Common Outdoor Function Settings".

TOOL App Color Display and Monochrome Display

You can switch the TOOL app screen between color display and monochrome display. Outdoors in bright sunlight, the monochrome display provides better readability than the color display.

To do this:	Perform this operation:
Switch from the color display to the monochrome display	Hold down the TOOL button for about three seconds.
Switch from the monochrome display to the color display	Hold down the TOOL button for about three seconds or tap the touch screen.

Note

- While the TOOL app is running, it will shut down automatically after about one minute of non-use.
- "My Graph" TOOL app function cannot be displayed under the watch's initial default settings. For information about the operation required to display My Graph, see "Using My Graph".

Using Compass

The pointer indicates true north.*1

The value in the center of the display shows how many degrees there are in a clockwise direction from the north indication (which is 0°) to 12 o'clock on the watch. For example, if 12 o'clock on the watch is facing due east, the value will show 90°. Letters on the display also indicate the direction that 12 o'clock is facing (16 directions).

*1 Initial default setting. For information about how to change settings and have magnetic north indicated, see "Compass Magnetic Declination Calibration".

To lock the direction

You can use Compass to lock the indicated direction to help you maintain a specific bearing while trekking, etc. While the watch's 12 o'clock position is pointed in the direction you want, tap the touch screen. If the watch's 12 o'clock position deviates from the locked direction, the amount of the deviation will be indicated in blue.

To unlock a direction, tap the touch screen again.

Compass Calibration (Magnetization Correction)

The "Perform magnetization correction." message may appear while you are using Compass. To calibrate the compass, move the watch around as shown in the animation that appears on the watch display. Keep moving your arm until the message disappears, indicating that magnetization correction is complete.

Note

- The watch normally performs magnetization correction automatically. You only need to perform the above operation when the message appears.

Using Altimeter

Altimeter has a color display Altimeter Screen (left), a color display Altitude Graph Screen (center), and a monochrome display (right).

- All of the screens show the altitude at your current location.
- The Altitude Graph Screen shows a graph of altitude changes over the past 24 hours, along with the low altitude (Min) and high altitude (Max) during that period.
- The upper part of the monochrome display shows a graph of altitude changes over the past 23 hours.
- Your watch measures altitude within the range of –700 to 10,000 meters (or –2,300 to 32,800 feet), in units of 1 meter (or 5 feet).

Before Using Altimeter

- The watch's Altimeter can be configured to use positioning information (GPS) to correct altitude readings automatically (not supported when the WSD-F10 is connected with an iPhone). Configure the settings below to use this function.
  - Correctly configure the "Location" setting on the watch and smartphone. For more information, see step 1 under "Preparing the Watch for Outdoor Use".
  - Select "ON" for the "Correct Altitude Using Location" setting. After reading "Common Outdoor Function Settings", perform the operation under "Correct Altitude Using Location".
- Since the watch displays relative altitude based on changes in barometric pressure, it may display different altitude readings for the same location, or incorrect readings due to changes in the local barometric pressure. "Correct Altitude Using Location" uses GPS information to correct altitude. Even so, since GPS information generally includes some error, there may be large error between the altitude readings produced by this watch and actual altitudes indicated locally. If you want more accurate altitude readings while climbing or hiking, manually inputting locally indicated altitude values is recommended. After reading "Common Outdoor Function Settings", perform the operation under "Altitude Calibration".
- When taking altitude readings, keep the watch at as stable a temperature as possible. For better accuracy, strap the watch to your wrist for some time before taking readings in order to allow the watch's temperature to stabilize. Changes in pressure sensor temperature can cause measurement error.

Altimeter Precautions

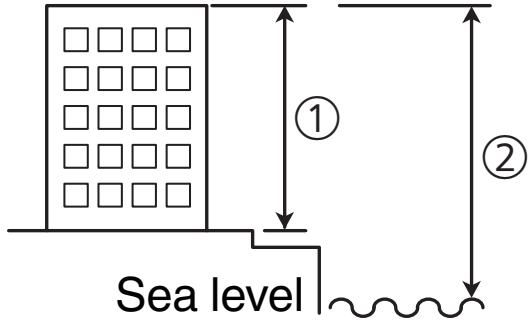
- Do not use this watch while skydiving, hang gliding, paragliding, gyrocopter flying, glider flying, or engaged in other activities where altitude changes suddenly.
- Altitude readings produced by this watch are not intended for special-purpose or industrial level use.
- In an aircraft, the watch measures the in-cabin pressurized air pressure, so readings will not match altitudes announced by the crew.
- Large changes in barometric pressure due to atmospheric conditions, large temperature changes, or subjecting the watch to strong impact may make correct readings impossible.

Displayed Altitude Values (Relative Altitude)

The two ways to express altitude are described below.

Relative Altitude:
This is the difference in the altitudes between two locations.
Example: Height measured from the ground to the top of a building (①)

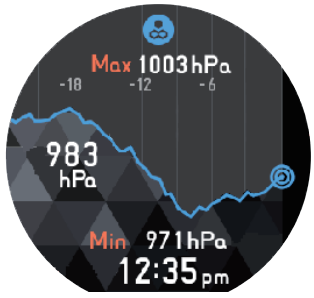
Sea Level Altitude (Elevation):
Altitude measured from sea level.
Example: Height measured from sea level to the top of a building (②)



Your watch's Altimeter use a pressure sensor to measure barometric pressure, and then calculates and displays relative altitude based on the measured value. The altitude values displayed by your watch are based on International Standard Atmosphere (ISA) relative altitude data defined by the International Civil Aviation Organization (ICAO).

Using Barometer

Barometer has a color display Barometer Screen (left), a color display Barometric Pressure Graph Screen (center), and a monochrome display (right).



- All of the screens show the barometric pressure at your current location.
- The Barometric Pressure Graph Screen shows a graph of pressure changes over the past 24 hours, along with the low pressure (Min) and high pressure (Max) during that period.
- The upper part of the monochrome display shows a graph of barometric pressure changes over the past 23 hours.
- Your watch measures barometric pressure within the range of 260 to 1,100 hPa (or 7.6 to 32.5 inHg), in units of 1 hPa (or 0.1 inHg).

Calibrating Barometric Pressure Readings Manually

Though the pressure sensor built into the watch is adjusted at the factory and normally does not require calibration, you can perform the calibration operation above if you notice that readings are very different from those from other sources. After reading “Common Outdoor Function Settings”, perform the operation under “Barometric Pressure Calibration”.

Barometer Precautions

- The barometric pressure graph produced by this watch can be used to obtain an idea of upcoming weather conditions. Note that this graph provides only a rough idea of barometric pressure trends, and it is not intended for official weather predictions or reporting activities.
- Pressure sensor readings can be affected by sudden changes in temperature. Because of this, there may be some error in the readings produced by the watch.

Using Sunrise/Sunset

Sunrise/Sunset has a color display Time Screen (left), a color display Azimuth Screen (center), and a monochrome display (right).

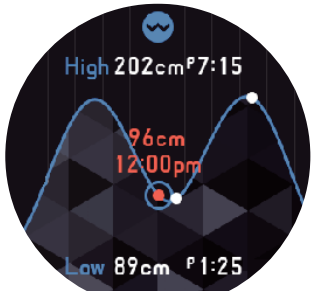
- The Time Screen shows the following times: sunrise time (upper left), pre-dawn nautical twilight start time (lower left), sunset time (upper right), post-sunset nautical twilight end time (lower right), and the current time (bottom center).
- The Azimuth Screen shows the current time, the sunrise time, and the sunset time. The outer circumference of the display shows a compass, with a red pointer indicating north. indicates the sunrise azimuth while indicates the sunset azimuth.
- The monochrome display alternates at 10-second intervals between sunrise time (RISE) and sunset time (SET).

Nautical Twilight

Twilight is the time when the sky brightens as the sun is at or just below the horizon (water horizon or visible horizon). There are actually three types of twilight: nautical twilight, civil twilight, and astronomical twilight. Nautical twilight is normally defined as occurring when the sun is from 6 to 12 degrees below the horizon.

Using Tide Graph

Tide Graph a color display Tide Graph Screen (left), a color display Fishing Time Screen (center), and a monochrome display (right).



- The Tide Graph Screen shows the current tide level and time (red characters in the center of the screen), along with the high tide (High) and the low tide (Low) that will occur up to 12 hours later. The graph shows changes in the tide level for 24 hours (12 hours before and after the current time).
- The number of white fish marks on the Fishing Time Screen indicates the projected probability of fishing success. Anywhere from zero to four white fish marks are displayed, and more white fish marks indicate that better success can be expected. Note however, that this in no way specifically guarantees your fishing success.
- The monochrome display alternates at 10-second intervals between high tide time (HIGH) and low tide time (LOW).

Before Using Tide Graph

- To use the Tide Graph Screen, you need to specify the point (port) whose tide information you want to view. After reading "Common Outdoor Function Settings", perform the operation under "Port setting".
- The information the watch displays on the Fishing Time Screen is calculated based on your current location. It is not affected by the watch's point (port) setting. This means that Fishing Time Screen information can be used for both saltwater and fresh water fishing.
- Keep in mind that the Tide Graph Screen shows information about the currently selected point (port), while Fishing Time Screen information is based on your current location.

Using My Graph

My Graph shows the status of your activities for the current day.

- Under initial default settings, both screens show how many calories you have burned from the start (00:00) of the current day.
- A color display shows what types of activities you have performed on the current day as a concentric circle graph. Values at the bottom of the screen show the cumulative times spent engaged in each type of activity (: Riding, : Resting, : Walking, : Running).
- You can hide the current time and cumulative activity times by tapping the touch screen of the color display. Tap the touch screen again to show the times.

Before Using My Graph

My Graph cannot be displayed under the watch's initial default configuration. To display it, you need to change the "Save daily activity records" setting to "ON". For more accurate burned calorie calculation, you need to input the following information: height, weight, wrist where you wear the watch. After reading "Common Outdoor Function Settings", configure the following settings: "Save daily activity records", "Height", "Weight", "Wrist where you wear the watch".

To specify the type of values shown in the center of the My Graph screen

1. **Swipe the touch screen from right to left. On the "Settings" Screen that appears, tap ⚙. This displays the setting menu.**
2. **Scroll the setting menu upwards and downwards. When "Centered value / My Graph" is displayed, tap it. This displays a list of value types.**
3. **Scroll the list upwards and downwards. When the type of value you want shown in the center of the My Graph Screen is displayed, tap it.**

Important!

- The setting procedure and calculation method used to determine calories burned, number of steps, and other numeric values depends on the app being used. Because of this, there may be some variation between values. For example, the number of calories shown on My Graph will not necessarily match the number of calories burned on another app's display.
- The activity type and activity time displayed by My Graph are based on movements detected by the watch's sensors. Because of this, certain movements may result in misinterpretation of your activity, resulting in the wrong activity type and/or activity time being displayed.

Using the Activity App

The Activity app shows cumulative elapsed time from when one of the outdoor activities listed below starts until it stops, a track of the route followed on a map, and a list of data (activity time, tracked route, etc.)

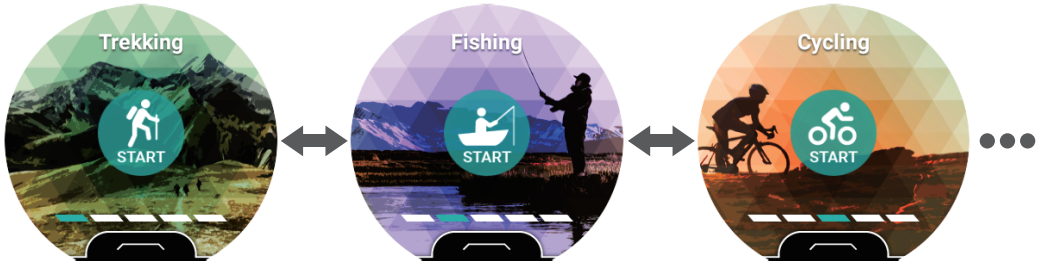
Trekking
Fishing
Cycling*2
Paddle*1
Snow*1

*1 WSD-F20 series only
*2 Available with the WSD-F10 only while the watch is connected with an Android phone.

Activity App Screen

Screen Before Start of Measurement

The text below the “START” (or “BEGIN”) button shows the activity type. You can change the activity type by swiping the touch screen left or right.



- Swipe the touch screen from bottom to top. You can use the menu that appears to perform the operations below.

Use this menu item:	To do this:
Download Map*3	Download maps ahead of time while you have net access when you want to use maps where there is no net access. After tapping this menu item, perform the procedure from step 2 under "Download Map". Using this procedure to download a map automatically changes the "Map Type"setting to "Mapbox".
History & Export → Activity History*3	Display an activity history (activity end dates and times). You can tap an item in the history to display its measurement result screen and/or map screen.
History & Export → History Auto Save*3	Enable "History Auto Save", which will cause the operations below to be performed whenever you stop a logging operation with the Activity app. This means you can view history data on the phone. • Auto registration of the activity type and date/time data to Google Calendar • Auto save of traveled route data (KML file) to Google Drive The exported KML file is stored on Google Drive in a folder named "CASIO-WSD". For details about the required procedure, see "Enabling History Auto Save (WSD-F20 series only)".

Use this menu item:	To do this:
History & Export → View History on Phone (Android only)*3	Display a calendar (Google Calendar or another similar app) on the phone. To view the route you traveled with Google Earth or another app, tap the desired data on the Calendar. For details about the required procedure, see "Viewing History Data on a Phone (WSD-F20 series only)".
Target altitude	Specify the trekking target altitude.
MOMENT SETTER	Configure MOMENT SETTER notification settings to get useful information delivered when you need it during an activity. For details, see "Using the MOMENT SETTER App".

*3 WSD-F20 series only

- Tapping "START" or "BEGIN" starts speed and distance traveled measurement of the activity and switches to the measurement in progress screen.

Measurement in Progress Screens

Swiping the screen left or right while measurement is in progress will switch between a measurement data screen, map screen*4, "STOP" screen, etc. The screens that can be displayed depend on the activity type.

*4 The map screen cannot be displayed while there is a connection between the WSD-F10 and your iPhone.

Basic Activity App Operations

To do this:	Perform this operation:
Start measurement (excluding Snow*5)	Select the type of activity whose data you want to measure and then tap “START”.
Start a Snow*5 measurement operation (while “Auto Record” is “ON”)	Select the type of activity whose data you want to measure and then tap “BEGIN”. ● Measurement will start automatically when the watch detects the start of a Snow run.
Start a Snow*5 measurement operation (while “Auto Record” is “OFF”)	1. Select the type of activity whose data you want to measure and then tap “BEGIN”. 2. To start measurement, press the APP button.
Stop a measurement operation*6	After the activity whose data is being measured is finished, tap “STOP” (or “END”).
Input fishing results during Fishing measurement	While a Fishing data measurement operation is in progress, display the fishing result screen and then press the APP button or tap .

*5 WSD-F20 series only

*6 The Activity app automatically shuts down 20 hours after measurement starts.

Important!

- Note that if the watch switches to the monochrome LCD screen while the Activity app is performing a measurement operation, the values being measured will not be displayed. To view values being measured, you will need to tap the display and switch to the color LCD screen.
- Selecting ON for the “Always-on screen” setting is recommended while using the Activity app. “Always-on screen” is a Wear OS by Google setting item. For details, visit the website below.
https://support.google.com/wearos/

Enabling History Auto Save (WSD-F20 series only)

1. **Display the Activity app “START” screen or “BEGIN” screen.**
2. **Swipe the touch screen from bottom to top. On the menu that appears, tap the following in sequence: “History & Export”, “History Auto Save”.**
3. **On the Select Account screen that appears, select the Google account you want to use.**
4. **In response to the confirmation message that appears, tap “Enable”.**
   - At this point, a message may appear asking you to grant access to your Google Calendar and/or Google Drive. If this happens, scroll downwards as you read the message, and then tap ✓ to allow access.
   - Check to confirm that “ON” is displayed for “History Auto Save”.
   - While “History Auto Save” is enabled, history data will be uploaded automatically whenever a logging operation performed with the Activity app is stopped.

Viewing History Data on a Phone (WSD-F20 series only)

Important!

- Note that your phone needs to have “Google Calendar”, “Google Drive”, and “Google Earth” installed in order to perform this procedure.

1. On the phone, start up Google Calendar.

2. On Google Calendar, tap the history data whose details you want to view.

- On the detailed information screen that appears, tap the link of the KML file stored on Google Drive.

3. Use Google Earth to open the KML file.

Android phone:

1. Tap the KML file link.
2. On the app selection screen that appears, tap Google Earth.
   - This starts up Google Earth and shows the route you traveled on a map.

iPhone:

1. Tap the KML file link.
   - This will display the following message: “Unsupported File Format.”
2. In the upper right corner of the screen tap the more options (...) icon. On the screen that appears, tap “Open In”.
3. On the dialog box that appears, tap “Google Earth”.
   - This starts up Google Earth and shows the route you traveled on a map.

Note

- If the watch is paired with an Android phone, you can use watch menu operations to start up the phone's Google Calendar.

  1. Display the Activity app "START" screen or "BEGIN" screen.
  2. Swipe the touch screen from bottom to top. On the menu that appears, tap "View History on Phone".

Data Displayed During Measurement Operations

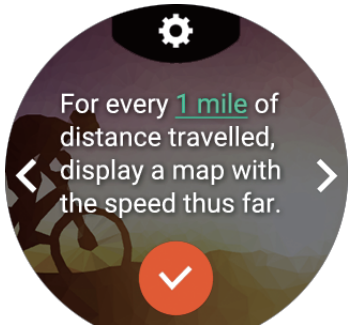
Note the points below concerning the data displayed while a measurement operation is in progress.

- For information about procedures to calibrate the barometric pressure and altitude values displayed by the Activity app to make them more accurate, read "Common Outdoor Function Settings" and then refer to the following items: "Barometric Pressure Calibration", "Altitude Calibration", and "Correct Altitude Using Location".
- Location information (GPS) acquisition is not supported while the WSD-F10 is connected with an iPhone, so hyphens (-) are displayed in place of the speed and distance readings.
- Since speed and distance traveled are measured using the watch's or your smartphone's GPS function, location measurement error may result in measured value error.
- Speed and distance are calculated at regular intervals, so there may be some lag before values are displayed.
- Hyphens (-) are displayed in place of the speed and distance readings when the watch is unable to acquire location information (GPS).

Using the MOMENT SETTER App

For example, you can use the MOMENT SETTER app to receive notifications like the ones shown below.

- During an Activity app Trekking measurement operation, perform a vibration notification and display the remaining altitude when there are 200 m remaining to an altitude of 2000 m.
- Every day, perform vibration notification and display the sunrise time one hour before sunrise.



Operation involves simple selection of the notification to be received from a menu.

As is evident in the above example, there are two types of MOMENT SETTER notifications: those received during the measurement operation of an Activity app Trekking, Fishing, or another activity, and those that are not related to an activity measurement operation.

MOMENT SETTER App Main Menu

Starting up the MOMENT SETTER app first displays a Main Menu.

Setting items included in the Main Menu are shown in the table below.

Tapping this item:	Displays this menu:
Recent	Menu of up to three notifications that were last turned on. This item appears when one or more MOMENT SETTER notifications were turned on.
Climbing, trekking*1, Fishing*1, Cycling*1, Paddle*1*2, Snow*1*2	Notification menu corresponding to each activity type (see "Using the Activity App"). The alerts of each menu can be received only while there is a measurement operation in progress for the activity with the same name as the item name.
Extras	Displays a notification menu that is not associated with any activity type. The alerts on this menu can be received even when there is no Activity app measurement operation in progress.
Settings	Setting menu. See "Common Outdoor Function Settings".

*1 The menu that appears when one of these items is tapped is the same menu that is displayed when MOMENT SETTER is accessed from the Activity app.

*2 WSD-F20 series only

Example MOMENT SETTER Operation

This section shows an example operation for configuring notification settings for “Climbing, trekking”. This operation can be started from the MOMENT SETTER app or Activity app.

1. **Start up the MOMENT SETTER app and scroll the main menu upwards and downwards. When “Climbing, trekking” is displayed, tap it.**
   Or, on the Activity app “Trekking” “START” Screen, tap .

2. **Scroll the displayed notification menu left and right until the notification you want (such as, “Each 1 km of distance traveled, display the current altitude.”) is displayed.**
   - At this point, the check mark at the bottom of the notification screen will become gray. This indicates that notifications are disabled (no notifications received).
   - To change initial default settings, perform steps 3 and 4. To leave initial default settings as they are, advance to step 5.
   - To return from the notification menu to the previous screen (MOMENT SETTER app main menu or Activity app “START” Screen), press the APP button.

3. **Swipe the touch screen from top to bottom to display the criteria setting screen.**

4. **Tap “Distance”. On the list that appears, tap a setting (such as “3km”).**
   - This applies the changes and returns to the notification menu. At this time, notifications are enabled and the check mark at the bottom of the display will change to (meaning that the operation in step 5 is not required).

5. **At the bottom of the display, tap ⌄ to toggle it to ⌄.**
6. **Press the power button to exit the MOMENT SETTER app.**
   - After performing the above operation, you need to start up the Activity app and start a Trekking measurement operation to actually receive notifications. See “Using the Activity App”.

Note

- A notification from MOMENT SETTER is deleted automatically after a fixed amount of time.
- Since speed measurement, distance traveled measurement, and current location detection are performed using the watch’s or your smartphone’s GPS function, there may be some measured value error. Accuracy is particularly poor in a ravine or canyon, among buildings, indoors, and in other areas where signal reception is bad.
- You can disable all MOMENT SETTER settings with a single operation. After reading “Common Outdoor Function Settings”, perform the operation under “All Off”.

Using the Timepiece App

The Timepiece app enters Timepiece Mode, displays the current time on the monochrome display, and disables all other non-timekeeping watch functions. Use this app when you want to cut power consumption to the absolute minimum and display the current time only.

Important!

- In Timepiece Mode, apps, location information, Wi-Fi, and smartphone linking (notification reception, etc.) are all disabled.
- While the watch is in Timepiece Mode, you will not be able to change any settings related to the current time and date (time zone auto switching, smartphone time and date sync, including summer time adjustment, etc.) To update the time setting, every couple of days you should exit Timepiece Mode and establish a connection with a smartphone. If you have a WSD-F20 series watch, you can perform GPS Time Calibration to adjust time settings even if the watch is not connected with a phone.

Timepiece Mode Operations

To do this:	Perform this operation:
Switch the watch to Timepiece Mode	1. Start up the Timepiece app (see "Start up an app"). • This displays a confirmation screen. 2. Read the explanation on the screen, swiping from right to left as required to change pages. 3. Swipe the touch screen from left to right to return to the confirmation screen. 4. Tap ✓. • This shuts down Wear OS by Google, enters Timepiece Mode, and displays the current time on a monochrome screen.
Illuminate the display in Timepiece Mode	Press and immediately release the power button. This will illuminate the display for about two seconds.
Exit Timepiece Mode and restore normal function	Hold down the power button for about two seconds. This starts up Wear OS by Google and returns to normal function.

Common Outdoor Function Settings

CASIO apps and CASIO watch faces share the same outdoor functions such as Compass, Altimeter, etc. This section explains settings that are common to all CASIO apps and watch faces.

Basic Operations for Configuring Common Settings

Use the setting menu to configure common settings. The required operation to display the setting menu depends on what screen is displayed, but operations are the same in all cases once the menu is displayed. You can use the steps below to configure settings.

1. Display the setting menu.

From a CASIO watch face:

1. Hold your finger on the touch screen for about two seconds. This displays the setting menu.

From the TOOL app or Activity app:

1. Swipe the touch screen from right to left several times.
2. When the “Settings” Screen is displayed, tap ⚙. This displays the setting menu.

From the MOMENT SETTER app:

1. Swipe the touch screen from bottom to top.
2. Tap “Settings”. This displays the setting menu.

From the Location Memory app (WSD-F20 series only):

1. While a map is displayed, swipe the touch screen from bottom to top.
2. On the menu that appears, tap “⚙Settings”. This displays the setting menu.

2. Scroll the setting menu upwards and downwards. When the setting item you want to configure is displayed, tap it.

- Some items toggle between settings when tapped, while others display another screen for configuring settings. For an explanation about each item and its operation, see “Setting Item List”.

Setting Item List

The setting items displayed on the setting menu (see "Basic Operations for Configuring Common Settings") are shown below. After displaying the setting menu, perform the operation required for the item whose setting you want to change.

Note

- The letters to the right of each setting item indicate the screen from which the setting item can be displayed. For example, the letters "WF" to the right of a setting item means that the setting item can be displayed from a watch face (WF) screen.

WF:	Watch face	MS:	MOMENT SETTER app
TL:	TOOL app	LM:	Location Memory app*1
AC:	Activity app	TP:	Timepiece app

*1 WSD-F20 series only

Compass Calibration (WF)

Operation

Tap this setting item and then move the watch around as instructed by the Compass magnetic calibration message and animation that appears on the display. A message will appear to let you know when magnetic calibration is complete, and then the screen that was displayed before you started calibration (watch face) will reappear.

Description

This function calibrates Compass so it indicates direction correctly.

If Compass Calibration is dimmed (and will not respond when tapped) it means that Compass accuracy is sufficient and that correction is not required.

Compass Magnetic Declination Calibration (WF/TL)

Operation

Each tap of this setting item toggles between "ON" and "OFF". The Compass indicates true north when on, and magnetic north when off.

Description

This function corrects magnetic north and true north error.

Altitude Calibration (WF/TL/AC)

Operation

1. If "Correct Altitude Using Location" is on, turn it off.
2. Tap "Altitude Calibration".
3. On the altitude input screen that appears, input the elevation at your current location (which you obtained from local indications).
   - Tap the digit of the value that you want to change, and then use ▲ and ▼ to change it.
   - To reset a manually input altitude calibration value, tap ⟲.

Important!

- Tapping ⟲ to reset the calibration value causes the watch to display altitude values that are simply calculated based on International Standard Atmosphere (ISA) definitions. Because of this, there will be large error between displayed values and actual altitude. Following reset, it is recommended that you re-input a locally indicated altitude value.
- Changing the "Correct Altitude Using Location" setting to "ON" will cancel any Altitude Calibration value you input manually.

Description

You can lessen error in the altitude readings displayed by the watch by manually inputting accurate local altitude and elevation values. You can find out the elevation at your current location from signs, maps, on the Internet, etc. While mountain climbing, it is highly recommended that you make a habit of regularly comparing altitude readings produced by the watch with locally available elevation indications, and of performing this procedure as required.

Correct Altitude Using Location (WF/TL/AC)

Operation

Each tap of this setting item toggles between “ON” and “OFF”.

Description

Select “ON” for this setting to perform auto altitude calibration based on the watch’s or your smartphone’s location information (GPS). “OFF” must be selected for this setting to perform altitude calibration manually using “Altitude Calibration”.

Important!

- This setting is not available while there is a connection between the WSD-F10 and your iPhone.
- When “ON” is selected for the Correct Altitude Using Location setting, the correction operation is performed only when GPS reception is extremely good. It is not performed in valleys, among buildings, or in any other location where reception is poor. Since GPS information generally includes some error, there may be error in relation to actual altitudes indicated locally. If you want more accurate altitude readings, turning off this item and performing the “Altitude Calibration” operation by manually inputting locally indicated altitude values is recommended.

MAX Altitude Reset (WF)

Operation

Tap this setting item to immediately reset the high altitude value.

Description

This setting resets the high altitude value displayed by the Altitude and Combination watch faces. Note that resetting does not change the setting to 0 meters. It changes the high altitude value to the highest altitude attained over the past 24 hours.

Barometric Pressure Calibration (WF/TL/AC)

Operation

Tapping this setting item displays a barometric pressure input screen. Input the current barometric pressure as measured by another accurate barometer.

- Tap the digit of the value that you want to change, and then use ▲ and ▼ to change it.
- To reset a manual calibration and display barometric pressure readings based on pressure sensor measurements, tap ⟲.

Description

Though the pressure sensor built into the watch is adjusted at the factory and normally does not require calibration, you can perform the calibration operation above if you notice that readings are very different from those from other sources. To calibrate manually, use this item to input the current barometric pressure as measured by another accurate barometer.

Centered value / My Graph (TL)

Operation

Tap this setting item and then scroll the list that appears upwards and downwards. When the type of value you want shown in the center of the My Graph Screen is displayed, tap it.

Description

This setting changes the type of value displayed in the center of the My Graph Screen.

Home city (WF)

Operation

Tap this setting item and then scroll the list that appears upwards and downwards. When the name of the city you want to specify as your Home city is displayed, tap it.

Description

This setting specifies the Home city displayed on watch faces (World Time, Traveler).

Edit Color (WF)

Operation

Tap this setting item, and then on the list that appears tap the color you want to use.

Description

This setting specifies the face color of a watch face (Authentic, Field, Multi, Location, Traveler).

Monochrome Display (WF/TP)

Operation

Each tap of this setting item toggles the face background between “Dark” and “Bright”.

Description

You can select how the watch’s monochrome LCD displays data. This setting is applied to all of the displays below.

- “2 Layers” watch face monochrome display
- TOOL app monochrome display
- Timepiece Mode monochrome display

GPS Time Calibration (WSD-F20 series only) (WF)

Operation

1. Move to an outdoor area where the sky is visible.
2. Perform the required operation on a CASIO watch face to display the setting menu, and then tap “GPS Time Calibration”.
3. Carefully read the message that appears on the display and then tap “Correct”.
4. Wait until GPS reception is complete.

Description

The watch normally adjusts its current time setting by syncing with a smartphone. Should the smartphone battery go dead, if you lose your smartphone, or if syncing is not possible for some other reason, you need to perform the above operation each time you want to adjust the watch’s time setting. Each time you do, the watch will temporarily adjust its time setting based on GPS information.

It is recommended that you perform this procedure in a location where GPS reception conditions are good and where the sky is visible. See “Appropriate and Inappropriate Signal Reception Location”.

Units (WF/TL/AC/MS)

Operation

Each tap of this setting item toggles between “Metric” and “Imperial”.

Description

Use this setting to switch between metric units (meters, kilograms, hPa, etc.) and Imperial units (feet, pounds, inHg, etc.) for values displayed by CASIO watch faces and apps.

Port setting (TL)

Operation

Tap this setting item and then scroll the list that appears upwards and downwards. When the name of the point (port name or name of a city near the ocean) you want is displayed, tap it.

Description

This setting specifies the point (port) whose tide information is displayed by the “Tide Graph” of the TOOL app.

Re-calculation with Current Location (TL)

Operation

Tap this setting item to start acquisition of positioning information for your current location. After positioning information acquisition is successful, the TOOL screen will reappear, which will show re-calculated data.

Description

Perform this operation when “DEMO” is displayed on the TOOL app screen or when the message “Displayed result is based on location info from 000 minutes ago.” appears. It re-calculates data displayed by the TOOL app based on current location information acquired by the watch or your smartphone GPS function.

Save Daily Location Info (WSD-F20 series only) (WF/MS/LM)

Operation

After tapping this setting, you then need to select “Every 6 minutes”, “Every 1 minute”, or “OFF”.

Important!

- When you tap this setting item to toggle from “OFF” to “ON”, you will also need to tap “Every 6 minutes” or “Every 1 minute” on the confirmation dialog box that appears.

Description

This item is for configuring a setting related to the Location Memory app.

Selecting “ON” for this item enables maintenance of a daily location history, even when there is no Activity app measurement operation.

Important!

- Note that once internal storage becomes full, the oldest location history information is deleted automatically to make room for new information when it is recorded.

Save daily activity records (WF/TL/MS)

Operation

Each tap of this setting item toggles between “ON” and “OFF” (initial default setting).

Important!

- When you tap this setting item to toggle from “OFF” to “ON”, you will also need to tap “I agree.” on the confirmation dialog box that appears.

Description

This item is for configuring a setting related to watch faces (Authentic, Field, Multi), the TOOL app (My Graph), and the MOMENT SETTER app.

Selecting “ON” for this item, allows the watch to record information (such as displayed workout time and calories burned) about your activities. If you want to use this function, make sure that its setting is “ON”.

Height (TL/MS)

Operation

Tap this setting item and then use the screen that appears to input your height.

- Tap the digit of the value that you want to change, and then use ⌃ and ⌄ to change it.

Description

The value you input for this item is used as basic information when calculating data displayed on the TOOL app’s “My Graph”.

Weight (TL/MS)

Operation

Tap this setting item and then use the screen that appears to input your weight.

- Tap the digit of the value that you want to change, and then use ⌃ and ⌄ to change it.

Description

The value you input for this item is used as basic information when calculating data displayed on the TOOL app’s “My Graph”.

Wrist where you wear the watch (TL/MS)

Operation

Each tap of this setting item toggles between “Right” and “Left”.

Description

The value you input for this item is used as basic information when calculating data displayed on the TOOL app’s “My Graph”.

Target altitude (AC)

Operation

Tap this setting item and then use the screen that appears to specify a target altitude.

- Tap the digit of the value that you want to change, and then use ⌃ and ⌄ to change it.

Description

Use this item to input a target altitude before starting an Activity app Trekking activity.

Route Colors (AC)

Operation

From the Activity app, perform the required operation to display the setting menu and then tap “Route Colors”. This displays a screen showing the meanings of the route track colors.

Description

Route tracks are drawn on Activity app maps using multiple colors. This item shows the meaning of each color, and is not used for configuring particular settings.

Auto Record (WSD-F20 series only) (AC)

Operation

1. Use the Activity app to display the Snow “BEGIN” screen, and then tap “BEGIN”.
2. Swipe the touch screen from right to left as many times as necessary to display the “Settings” Screen. Next, tap ⚙.
3. On the setting menu that appears, swipe upwards and downwards until “Auto Record” is displayed, and then tap it.
   - Each tap toggles between “ON” and “OFF”.

Important!

- The “Auto Record” setting can be modified only on the setting menu you display using steps 1 and 2 above.

Description

This setting is related to the Activity app “Snow”. When the setting of this item is “ON”, the watch will start an activity measurement operation automatically when operation by you is detected. When “OFF”, you need to start measurement operations manually. The initial default setting is “OFF”.

Map Type (AC/MS/LM)

Operation

Each tap of this setting item toggles between “Google Maps” and “Mapbox”.

Description

This setting lets you select either Google Maps or Mapbox as the map type displayed by the Activity app and Location Memory app.

Important!

- Maps displayed while “Mapbox” is selected use geographic information from OpenStreetMap. OpenStreetMap geographic information can be freely edited by anyone, which means that information displayed on a map may not be correct.

Map Skin (AC/MS/LM)

Operation

Tap this setting item, and then use the list that appears to tap the name of the map skin you want to use.

Description

This item is for selecting the map skin displayed by the Activity app and the Location Memory app. You can select geographic view, satellite view, or another view to suit your location or purpose.

Download Map (AC/MS/LM)

Operation

1. Change the “Map Type” setting to “Mapbox”.
2. Tap “Download Map”.
   - This displays a list of map skin names.
3. Scroll the list upwards and downwards. When the skin name you want is displayed, tap it.
   - This displays a map with your current location in the center.
4. Scroll the map so the location that you want to be in the center of the map you download is in the center of the watch screen.
5. Use the TOOL button (+) and APP button (-) to zoom the map so the area you want to download fills the screen.
6. Tap “Fix”.
   - This may cause a message prompting you to use Wi-Fi to appear.
   - This starts map downloading, and show the progress on the display. To cancel downloading, tap ×.
   - The downloaded map will appear on the display after download is complete.

Important!

- Except when you want to cancel, do not perform any watch operation until map downloading is complete. Performing an operation may stop the download.
- Map data is heavy, so use of a Wi-Fi connection is recommended.
- Zoom levels are limited while a downloaded map is displayed. The smaller the area of the map you display in step 5 of this procedure, the greater the detail that will be shown when you enlarge the map. In step 5, specifying the smallest map area you might possibly need is recommended.
- Tapping “Fix” in step 6 may cause a message prompting Wi-Fi connection to appear. If you are in a location where Wi-Fi is available, tapping “Wi-Fi” to switch communication over to Wi-Fi is recommended.
- The watch can store only one set of Mapbox map data (map area and skin type) at a time. Executing a map download operation causes the map data currently stored in watch memory to be replaced by the new data. Even if you just want to change the skin type for the same map range, you should perform the download operation again.

Description

This item is for configuring settings related to the Activity app and the Location Memory app. It is for downloading a map to watch memory when “Mapbox” is selected for “Map Type”. If you want to use the map in an area where a network connection is not available, use this item beforehand in an area where a network connection is available to download the desired map.

Downloaded Map (AC/MS/LM)

Operation

Tapping this setting displays the map you downloaded.

Description

Use this operation to check the map area and skin downloaded to the watch with the “Download Map” operation.

Route Tracking(Activity) (AC/LM)

Operation

Each tap of this setting item toggles between “Accuracy Priority” and “Battery Priority”.

Description

This item is for configuring a setting related to Activity app. While “Accuracy Priority” is selected, the GPS positioning operation is performed more frequently, and the route tracked on the map is more accurate. While “Battery Priority” is selected, the accuracy of the route tracked on the map is reduced somewhat, but battery power is saved.

Except when you want to perform long-term Trekking or Fishing measurement operations, use “Accuracy Priority” for better speed and distance calculation accuracy.

Important!

- Note that with Activity app Cycling, Paddle[*1], and Snow[*1] measurement operations, GPS positioning is executed at relatively short intervals even when “Battery Priority” is selected for this setting. Because of this, battery power savings are less in this case.

*1 WSD-F20 series only

All Off (MS)

Operation

1. Tap this item and a confirmation dialog box will appear asking if you want to disable all MOMENT SETTER notifications.
2. Tap “Turn off.” to disable notifications or “Cancel” to leave notifications enabled.

Description

Removing all check marks from the MOMENT SETTER app menu disables all notifications. Note that once you perform this operation, there is no single batch operation to re-enable notifications. You will need to use the MOMENT SETTER app menu to individually re-enable each notification you want.

Route Display (WSD-F20 series only) (LM)

For information about this item, see “Enabling Route Tracking on the Map (Route Display)”.

Revisit (WSD-F20 series only) (LM)

For information about this item, see “Changing the “Revisit” Mark Notification Setting”.

Monochrome Display

Your watch has a dual-layer color and monochrome LCD. This section summarizes when the monochrome display is displayed.

Watch Monochrome Displays

Your watch has the two types of monochrome display screens shown below.

①(Lined)

②(Unlined)

The watch displays the monochrome display in the cases below.

After entering Timepiece Mode

The lined screen shown in ① will be displayed. See "Using the Timepiece App".

While Wear OS by Google operation is stopped due to a low charge level

The lined screen shown in ① will be displayed until power is fully depleted. In this state, all watch operations will be disabled and notification will not be performed. Charge the watch as soon as possible when this happens. Wear OS by Google will automatically resume operation after the charge reaches a prescribed level.

When the charge level drops below 5% or when the watch enters Doze mode

The unlined screen shown in ② will be displayed. Tapping the touch screen will switch to the color display. For details about Doze mode, visit the website below.

https://support.google.com/wearos/

While the "2 Layers" watch face is selected

If you do not perform any operation on the watch, the unlined screen shown in ② will be displayed. Tapping the touch screen will switch to the color display.

While "Always-on screen" is OFF

If you do not perform any operation on the watch, the unlined screen shown in ② will be displayed. Tapping the touch screen will switch to the color display.

"Always-on screen" is a Wear OS by Google setting item. For details, visit the website below.
https://support.google.com/wearos/

TOOL App Monochrome Display

Holding down the TOOL button for about three seconds while a TOOL app color display is shown will switch to a simple monochrome display.

- Tapping the touch screen while the monochrome display is shown will switch to the color display.
- For information about the TOOL app, see "Using the TOOL App".

Troubleshooting

Refer to this section whenever you are experiencing problems with watch operation.

If you don't find the solution to your problem here, visit the website below.
http://support.casio.com/wsd/

Restoring Watch Operation

If you find yourself unable to obtain proper operation from the watch for some reason, restart it and then try performing the operation again. For information about restarting the watch, visit the website below.
https://support.google.com/wearos/

If the watch will not restart...

Perform the procedure below to force it to shut down. After the watch is forced to shut down, it will restart automatically.

1. Hold down the power button until the display goes white.

- Wait for a while until the watch restarts automatically.

Error Code and Error Message List

If an error code or error message appears on your watch, look it up in the table below and take the required action.

Error Code Error Message	Required Action
1001, 1009 Normal charging is not possible for some reason. If this message keeps appearing, request servicing.	Remove the charger cable from the watch, turn off the watch, and then try charging again. Use only the AC adaptor and charger cable that comes with the watch for charging. If this message/error code keeps appearing, it could mean that the chargeable battery has deteriorated. Request servicing by your original retailer or an authorized CASIO service center.

Error Code Error Message	Required Action
1003 Too cold to charge.	Charge the watch in an area where the ambient temperature is between 10°C and 35°C (50°F and 95°F).
1004, 1007 Too hot to charge.	
1021 Sensor problem. Correct readings are not possible. Frequent appearance of this message could indicate malfunction.	This message may indicate problem with the watch's built-in pressure sensor, accelerometer, or gyrosensor. If this message keeps appearing, request servicing by your original retailer or an authorized CASIO service center.
9000 Some problem occurred with the watch. Power will turn off shortly.	To restart the watch, first charge it for at least one hour. Next, hold down the power button for about 12 seconds until the display goes white.
9001, 9002, 9003 Some problem occurred with the watch. Power will turn off shortly.	Take your watch to an authorized CASIO service center or to your original retailer for inspection and repair.
9010 Watch temperature is high. Power will turn off to protect it.	Remove the watch from your wrist and leave it in a location that is not exposed to direct sunlight, where the temperature is between 10°C and 30°C (50°F and 86°F) to allow the watch to cool down. You will be able to turn the watch on again after it reaches a lower temperature.

Important!

Note the precautions in this section whenever using this watch.

Precautions During Use

Display Information Accuracy

Tide Graph Precautions

For Japan area oceans, tide times and level changes are predictively calculated using harmonic constant data obtained from Bibliography 742 Tidal Harmonic Constants Tables, Japanese Coast (February 1992) published by the Hydrographic Department of the Japan Coast Guard, and from the List of Tidal Stations (2015) published by the Japan Meteorological Agency. For other area oceans, tide times and level changes are predictively calculated using harmonic constant data obtained from NOAA, NOAA CO-OPS, and the NOAA Tides & Currents website, and the U.S. DEPARTMENT OF COMMERCE / COAST AND GEODETIC SURVEY January 1942 TH-1.

Actual tidal phenomena fluctuate in accordance with weather, the season, and various other factors, and may give rise to irregularities not in accordance with calculated values. Certain conditions may result in some deviation from actual tides. Because of this, the information produced by the Tide Graph function of this app and watch should be treated as approximate reference information only. Never use it for navigation or any other decisions about tide that may put safety at risk.

Sunrise/Sunset Precautions

Sunrise and sunset calculations are performed using the following azimuths: North: 0 degrees, East: 90 degrees, South: 180 degrees, West: 270 degrees. Calculation results include error of multiple seconds, and error becomes greater at higher latitudes. Calculations assume a level horizon, and local topography is not taken into consideration.

Moon Age Precautions

Moon ages displayed by this watch are based on the calculation described below.
(1) Elongation is calculated using solar and lunar coordinates produced by functional calculus.
(2) Moon age is calculated based on the correlation between the elongation and average moon age.
Though the lunar period averages 29.53 days, it actually fluctuates by as much as ±1 day, so this calculation produces an error of up to ±1 day.

Water Resistance

This watch is water resistant up to five atmospheres, which means it can be worn while working around water and while swimming. However, note the information below.

- Even if a watch is water resistant, note the usage precautions described below.
  - Avoid using this watch while windsurfing, skin diving, or scuba diving.
  - Do not operate the buttons while your watch is submersed in water or wet.
  - Do not charge the watch while it is in water or wet.
  - Avoid wearing your watch while in the bath.
  - Do not wear your watch while in a heated swimming pool, sauna, or any other high temperature/high humidity environment.
  - Do not wear this watch while washing your hands or face, or while performing any other task that includes the use of soap or detergent.
- The touch screen does not work while the watch is submerged in water.
- After using the watch where it is submerged in seawater or fresh water, or where it is soiled by sand or mud, rinse it with clean water as described below and then thoroughly dry it.

  1. Fill a bucket or other container with tap water or other clean water.
  2. Place the watch in the water and leave it there for about 10 minutes.
  3. Gently move the watch back and forth in the water to remove any salt, dirt, mud, sand, etc.

  - If the touch screen is dirty, do not rub it without first washing it clean.
  - After washing the watch, use a clean, dry, soft cloth to wipe away any remaining water. Next, leave the watch in a well-ventilated, shaded location to dry thoroughly.
- To maintain water resistance, have the gaskets of your watch replaced periodically (about once every two or three years).
- Be sure to leave battery replacement up to an authorized CASIO service center or your original retailer. Unauthorized battery replacement may cause problems with the waterproof performance of the watch.

- The inside surface of the watch glass may fog when the watch is exposed to a sudden drop in temperature. No problem is indicated if the fogging clears up relatively quickly. Sudden and extreme temperature changes (such as coming into an air conditioned room in the summer and standing close to an air conditioner outlet, or leaving a heated room in the winter and allowing your watch to come into contact with snow) can cause it to take longer for glass fogging to clear up. If glass fogging does not clear up or if you notice moisture inside of the glass, immediately stop using your watch and take it to an authorized CASIO service center or to your original retailer.
- Do not charge the watch if the watch or charger cable is wet. Wipe off all moisture and make sure the watch and charger cable are dry before charging.

Using GPS (WSD-F20 series only)

You watch can use radio signals from Global Positioning System satellites to determine your current location and the current time anywhere on the globe. The process for determining your current location is called “positioning”.

Appropriate and Inappropriate Signal Reception Location

- A good location for signal reception is outdoors where the sky is visible and not blocked by buildings, trees, or other objects.
- You may experience GPS signal reception problems in the areas described below.
  - Where the view of the sky above is narrow
  - Near trees or buildings
  - Near a train station, airport, or other congested area, or where there is a large amount of vehicular traffic
  - Near railway aerial wires, high-voltage lines, TV towers, etc.
- GPS signal reception is not possible in the areas described below.
  - Where the sky is not visible
  - Underground, in a tunnel, underwater
  - Indoors (Reception may be possible near a window.)
  - Near wireless communication equipment or other devices that generate electromagnetism.
- GPS satellites are in constant motion, so your location, the time of day, or other factors may cause a delay in the positioning operation or may even make positioning impossible.

Using GPS Outside Your Country

Some countries or geographic areas put legal restrictions on the use of GPS, on the collection and logging of location information, etc. Your watch has built-in GPS functionality, so before embarking on international travel to a country or area outside of the country where you purchased your watch, you should check with the embassy of the countries you plan to visit, your travel agency, or some other reliable source of information to find out if there are any prohibitions or restrictions on bringing in devices with GPS functionality, or on the logging of location information, etc.

Long Periods of Non-use

If you allow the watch to remain discharged and unused for a long period, it will take a long time to acquire GPS signals and perform positioning immediately after you charge the watch and start using it again.

GPS Function Precautions

- Whenever you are in any area where radio wave reception is prohibited or restricted, perform the operation below to turn off the “Location” setting.
  1. While the watch face is displayed, swipe the touch screen from top to bottom and then tap ⚙.
  2. Scroll downwards and tap “Connectivity” and then “Location”.
  3. On the screen that appears, disable “Location”.
- Map data may include information that is incorrect. Also, all countries and geographic areas may not be provided in the map data.
- Some location and address names may not display correctly due to applicable laws and restrictions in certain countries and geographic areas.
- The location information provided by the GPS function of this watch is intended for reference purposes only and locations shown may not be accessible or difficult to access. Also, map information may show mountain, jungles, deserts, and other dangerous or lawless locations. Before going to an unknown location, be sure to check on the latest information available about laws and safety.
- Using this watch in the vicinity of a mobile phone or other device that uses 1.5 GHz band radio waves may make signal reception impossible.
- Depending on reception conditions, GPS positioning information may include error up to several hundred meters.
- Location information is not acquired while flying on an aircraft or otherwise moving at very high speed.
- Never use the GPS function of this watch for surveying or any other measuring that requires high accuracy.
- Never use the GPS function of this watch for navigation of boats, aircraft, motor vehicles, individuals, etc.

- Location measurements are performed using satellites that are operated and managed by the United States (GPS), Russia (GLONASS), and Japan (QZSS). Because of this, there is always the possibility that access to its information may be disabled at the discretion of these countries.

Wi-Fi connectivity

Note that when using a Wi-Fi connection you need to be aware of the watch's battery level and your surrounding environment. A low battery or extreme cold can cause Wi-Fi operation to shut down automatically to protect the watch's system.

MIL-STD-810G

This watch has been tested for the items described below in accordance with the MIL-STD-810G standard established by the U.S. Department of Defense.

- Shock resistance is based on the assumption of normal daily use. Throwing the watch, or subjecting it to excessive dropping or other extreme shock can cause it to break.
- Be sure to read the information in this manual under "Precautions During Use" and "User Maintenance" in order to ensure proper use of this watch. Failure to use the watch in accordance with this information creates the risk of overheating, fire, electric shock, personal injury, and accident.
- The functions of this watch have been confirmed under test environments, but no guarantees are made concerning operation under all environments where it may be used. Also, no guarantees are made concerning the ability of the watch to withstand damage or malfunction.

Dropping	Tested in accordance with Method 516.7 Procedure IV.
Vibration	Tested in accordance with Method 514.7 Procedure I.
Humidity	Tested in accordance with Method 507.6 Procedure II.
Solar Radiation	Tested in accordance with Method 505.6 Procedure II.
Low Pressure Storage	Tested in accordance with Method 500.6 Procedure I.
Low Pressure Operation	Tested in accordance with Method 500.6 Procedure II.
High Temperature Storage	Tested in accordance with Method 501.6 Procedure I.
Low Temperature Storage	Tested in accordance with Method 502.6 Procedure I.

Thermal Shock	Tested in accordance with Method 503.6 Procedure I-C.
Freezing	Tested in accordance with Method 521.4 Procedure I.

Protective stickers

- Be sure to remove all protective stickers and/or paper tags that may be affixed to your watch (including its back cover) and/or its band when you purchase it. Using the watch without removing protective stickers and/or paper tags may result in the build-up of dirt between the watch/band and the sticker/paper tag, which creates the risk of rust and skin rash.

Charging

- The watch and AC adaptor may become warm to the touch during charging. This is normal and does not indicate malfunction.
- Do not charge the watch while its charge level is high enough for watch operation. Waiting until the charge level is low until you charge will help to extend battery life. Any of the following can hasten battery deterioration and should be avoided.
  - Frequent charging while the battery is fully charged or near fully charged
  - Continually charging while the battery is fully charged or allowing charging to continue for a long time
  - Connecting and disconnecting the charger cable multiple times during a single day even though the battery is fully charged
- Do not charge the watch in a location where large amounts of moisture, dust, or fine metal particles are present, in a location subjected to vibration, or near a hard line telephone, a TV, a radio, etc.
- The charger cable of this watch is magnetic. Contact with sand containing iron particles can make it unusable for charging. Should the charger terminal or cable become soiled with mud or sand, thoroughly wipe off all foreign matter before charging.
- In an area where it is extremely cold or hot, you may not be able to charge the watch or the watch may not charge completely. Charge the watch in an area where the ambient temperature is between 10°C and 35°C (50°F and 95°F).

Band

- Tightening the band too tightly can cause you to sweat and make it difficult for air to pass under the band, which can lead to skin irritation. Do not fasten the band too tightly. There should be enough room between the band and your wrist so you can insert your finger.
- Deterioration, rust, and other conditions can cause the band to break or come off of your watch, which in turn can cause band pins to fly out of position or to fall out. This creates the risk of your watch falling from your wrist and becoming lost, and also creates the risk of personal injury. Always take good care of your band and keep it clean.
- Immediately stop using a band if you ever notice any of the following: loss of band flexibility, band cracks, band discoloration, band looseness, band connecting pin flying or falling out, or any other abnormality. Take your watch to an authorized CASIO service center or to your original retailer for inspection and repair (for which you will be charged) or to have the band replaced (for which you will be charged).

Temperature

- Never leave your watch on the dashboard of a car, near a heater, or in any other location that is subject to very high temperatures. Do not leave your watch where it will be exposed to very low temperatures. Doing so can cause malfunction.
- Leaving your watch in an area hotter than +60°C (140°F) for long periods can lead to problems with its LCD. The LCD may become difficult to read at temperatures lower than 0°C (32°F) and greater than +40°C (104°F). Watch operation that is stopped due to high temperatures will not resume until watch cools sufficiently. Wait for a while to allow the watch to cool.

Magnetism

- Some watch functions may not operate normally in a location where magnetism is present. Very strong magnetism (from medical equipment, etc.) should be avoided because it can cause malfunction of your watch and damage to electronic components.

Chemicals

- Do not allow your watch to come into contact with thinner, gasoline, solvents, oils, or fats, or with any cleaners, adhesives, paints, medicines, or cosmetics that contain such ingredients. Doing so can cause discoloration of or damage to the resin case, resin band and other parts.

Storage

- If you do not plan to use your watch for a long time, thoroughly wipe it free of all dirt, sweat, and moisture, and store it in a cool, dry place.
- Disconnect the charger cable from the AC adaptor and unplug the AC adaptor from the power outlet when not charging. Store them in a safe place for later use. The charger cable is magnetic, so keep it away from magnetic cards, precision equipment, and analog watches.

Resin Components

- Allowing your watch to remain in contact with other items or storing it together with other items for long periods while it is wet can cause color on resin components to transfer to the other items, or the color of the other items to transfer to the resin components of your watch. Be sure to dry off your watch thoroughly before storing it and make sure it is not in contact with other items.
- Leaving your watch where it is exposed to direct sunlight (ultraviolet rays) for long periods or failure to clean dirt from your watch for long periods can cause it to become discolored.
- Friction caused by certain conditions (strong external force, sustained rubbing, impact, etc.) can cause discoloration of painted components.
- If there are printed figures on the band, strong rubbing of the printed area can cause discoloration.
- Daily use and long-term storage of your watch can lead to deterioration, breaking, or bending of resin components. The extent of such damage depends on usage conditions and storage conditions.

Watch Sensors

- A watch sensor is a precision instrument. Never try to take it apart. Never try to insert any objects into the openings of a sensor, and take care to ensure that dirt, dust, or other foreign matter does not get into it. After using your watch where it has been immersed in saltwater, rinse it thoroughly with fresh water.

Metal Components

- Failure to clean dirt from metal components can lead to formation of rust, even if components are stainless steel or plated. If metal components exposed to sweat or water, wipe thoroughly with a soft, absorbent cloth and then place the watch in a well-ventilated location to dry.
- Use a soft toothbrush or similar tool to scrub the metal with a weak solution of water and a mild neutral detergent, or with soapy water. Next, rinse with water to remove all remaining detergent and then wipe dry with a soft absorbent cloth. When washing the band, wrap the watch case with kitchen plastic wrap so it does not come into contact with the detergent or soap.

Liquid Crystal Display

- Display figures may be difficult to read when viewed from an angle.
- The LCD of this watch has flat bottom, and so it is not round. Because of this using a watch face that is designed for a round display may result in some part of the face being cut off.
- The liquid crystal panel of this watch uses high-precision technology that provides a pixel yield in excess of 99.99%. This means that some very small number of pixels may not light or may remain lit at all times. This is due to the characteristics of the liquid crystal panel, and does not indicate malfunction.

User Maintenance

Caring for Your Watch

Remember that you wear your watch next to your skin, just like a piece of clothing. To ensure your watch performs at the level for which it is designed, keep it clean by frequently wiping with a soft cloth to keep your watch and band free of dirt, sweat, water and other foreign matter.

- Whenever your watch is exposed to sea water or mud, rinse it off with clean fresh water.
- For a resin band, wash with water and then wipe dry with a soft cloth. Note that sometimes a smudge like pattern may appear on the surface of a resin band. This will not have any effect on your skin or clothing. Wipe with a cloth to remove the smudge pattern.
- To clean the metal parts on a resin band, use a soft toothbrush or similar tool to scrub the band with a weak solution of water and a mild neutral detergent, or with soapy water. Next, rinse with water to remove all remaining detergent and then wipe dry with a soft absorbent cloth. When washing the band, wrap the watch case with kitchen plastic wrap so it does not come into contact with the detergent or soap.

Dangers of Poor Watch Care

Rust

- Though the metal steel used for your watch is highly rust-resistant, rust can form if your watch is not cleaned after it becomes dirty.
  - Dirt on your watch can make it impossible for oxygen to come into contact with the metal, which can lead to breakdown of the oxidization layer on the metal surface and the formation of rust.
- Rust can cause sharp areas on metal components and can cause band pins to fly out of position or to fall out. If you ever notice any abnormality immediately stop using your watch and take it to an authorized CASIO service center or to your original retailer.
- Even if the surface of the metal appears clean, sweat and rust in crevasses can soil the sleeves of clothing, cause skin irritation, and even interfere with watch performance.

Premature Wear

- Leaving sweat or water on a resin band or bezel, or storing your watch in an area subject to high moisture can lead to premature wear, cuts, and breaks.

Skin Irritation

- Individuals with sensitive skin or in poor physical condition may experience skin irritation when wearing a watch. Such individuals should keep their leather band or resin band particularly clean. Should you ever experience a rash or other skin irritation, immediately remove your watch and contact a skin care professional.

Chargeable Battery Handling (Please recycle!)

The built-in lithium-ion battery includes valuable resources.

When you are ready to discard your watch, follow proper procedures in order to recycle resources. For information about the proper procedure to follow when discarding the watch, contact an authorized CASIO service center or your original retailer.

Important!

- Do not try to replace batteries by yourself. Request battery replacement from an authorized CASIO service center or your original retailer.

Personal Information Protection Precautions

To protect your personal information, be sure to unpair the watch from your smartphone before transferring ownership of the watch to another party or before disposing of the watch. For details, visit the website below.
http://support.casio.com/wsd/

Main Specifications

Common Specifications

- 3.35 cm (1.32-inches) dual layer display, Color TFT LCD (320 × 300 pixels) + Monochrome LCD
- Capacitive touch panel
- Microphone
- Vibration
- Battery:

  Type: Lithium-ion battery

  Charging time:
  Approximately 2 hours at room temperature (Be sure to use the special charger cable and AC adaptor.)
- Bluetooth: Bluetooth® 4.1 (Low Energy support)
- Wi-Fi: IEEE802.11b/g/n
- Memory & storage: 512 MB RAM, 4 GB internal storage
- Charging method: Magnetic crimped charging terminal
- Buttons: TOOL button, Power button, APP button
- 5-bar (50-meter) water resistant[*1]
- Environment performance: MIL-STD-810G (United States military standard issued by the U.S. Department of Defense)

- Watch:

  Auto time correction:
  By communication with smartphone (Time can be adjusted manually.)
  By GPS information (Can be corrected manually.)
  Time zones (world time function):
  Supports multiple world time zones (Types depend on system time zones.)
  12/24-hour timekeeping
  Full auto-calendar:
  Auto switching by linking with smartphone
  Summer time:
  Auto switching by linking with smartphone
  Watch faces:
  Three favorites, more can be added.

- TOOL App:

  Compass:
  Measurement range: 0° to 359°
  Measurement unit: 1°
  Continuous measurement duration: 1 minute
  North Indication hand, Magnetic declination calibration, Bearing memory, Gradient calibration

  Altimeter:
  Measurement range: –700 to 10,000 m (–2,300 to 32,800 ft)
  Measurement unit: 1 m (5 ft)
  Measurement accuracy: within ±75 m (within ±250 ft) (When frequent manual calibration is performed)
  Shortest measurement interval: 1 minute
  Altitude graph: Past 24 hours
  Manual altitude calibration, Auto altitude calibration using location information*2

  Barometer:
  Measurement range: 260 to 1,100 hPa (7.6 to 32.5 inHg)
  Measurement unit: 1 hPa (0.1 inHg)
  Measurement accuracy: within ±3 hPa (within ±0.1 inHg)
  Atmospheric pressure tendency graph: Past 24 hours
  Barometric pressure measurement interval: 1 minute
  Manual barometric pressure calibration

Tide and Fishing:
Tide graph: Past 12 hours + Next 12 hours
Fishing time (Calculated according to current location, and moon hour angle and age.)

Sunrise/sunset:
Sunrise/Sunset times (Current location sunrise/sunset)
Sunrise/Sunset directions: Accuracy depends on compass

My Graph[*4]:
Daily activity pattern: Stopped, walking, running, vehicle
Calories burned, Steps, Altitude (Highest altitude achieved that day), Workout time

- Screen brightness setting: 5 levels
- Watch battery level indicator: Integer value, 0 to 100%
- Charger (AC adaptor):
  INPUT: AC 100 V to 240 V 50 Hz/60 Hz
  OUTPUT: 5.0 V
- Charger cable:
  Length: Approximately 0.75 m (2.46 ft)
  Type: AC adaptor USB Type A
- Included accessories: Charger (AC adaptor), Special charger cable, Cloth band/Band replacement tool (WSD-F20X only)

- About MIL-STD-810G (United States military standard issued by the U.S. Department of Defense):

  Description:

  1. Drop
  2. Random Vibration
  3. Humidity
  4. Solar-Radiation
  5. Non-Operating Altitude
  6. Operating Altitude
  7. Non-Operating High Temperature
  8. Non-Operating Low Temperature
  9. Temperature Shock
  10. Icing Freezing Rain

  Procedure: MIL-STD-810G, w/change1

  1: Method 516.7 ProcedureⅣ
  2: Method 514.7 Procedure Ⅰ
  3: Method 507.6 Procedure Ⅱ
  4: Method 505.6 Procedure Ⅱ
  5: Method 500.6 Procedure Ⅰ
  6: Method 500.6 Procedure Ⅱ
  7: Method 501.6 Procedure Ⅰ
  8: Method 502.6 Procedure Ⅰ
  9: Method 503.6 Procedure Ⅰ-C
  10: Method 521.4 Procedure Ⅰ

  Attention:

  The functions of this watch have been confirmed under test environments, but no guarantees are made concerning operation under all environments where it may be used. Also, no guarantees are made concerning the ability of the watch to withstand damage or malfunction.

- Phones & tablets that work with Wear OS by Google

  Wear OS by Google works with phones running Android 4.4+ (excluding Go edition)[*5] or iOS 10+[*5*6]. Supported features may vary between platforms and countries.

  Visit g.co/wearcheck on your Android phone or iPhone® to see if it's compatible.

Model Specific Specifications

	WSD-F10	**WSD-F20** Series
Sensors	Pressure sensor, Accelerometer, Gyrometer, Magnetic sensor	GPS, Pressure sensor, Accelerometer, Gyrometer, Magnetic sensor
Operating time on full charge[*1]	Normal use: More than one day Timepiece Mode: Approximately one month	
Operating temperature	0℃ to 40℃ (32℉ to 104℉)	-10℃ to 40℃ (14℉ to 104℉)
Crystal	Mineral glass	**WSD-F20/WSD-F20X/WSD-F20A:** Mineral glass (dirt resistant coating) **WSD-F20S/WSD-F20SC:** Sapphire glass (dirt resistant coating)
Activity App	Trekking, Fishing, Cycling[*7]	Trekking, Fishing, Cycling, Paddle, Snow
MOMENT SETTER App	Trekking, Fishing, Cycling notifications	Trekking, Fishing, Cycling, Paddle, Snow notifications
Location Memory App	-	Map screen, route screen, selectable map skin, map downloading (off-line maps), voice memo, landmark, Revisit marks[*3], history screen
Approx. Size (Body H × W × D)	61.7 × 56.4 × 15.7 mm (2.4” × 2.2” × 0.6”)	**WSD-F20/WSD-F20X/WSD-F20A:** 61.7 × 57.7 × 15.3 mm (2.4” × 2.3” × 0.6”) **WSD-F20S/WSD-F20SC:** 61.7 × 57.7 × 15.1 mm (2.4” × 2.3” × 0.6”)
Approx. Weight (including band)	93 g (3.3 oz)	**WSD-F20:**92 g (3.2 oz) **WSD-F20S:**105 g (3.7 oz) **WSD-F20X:**94 g (3.3 oz) (including soft urethane band), 90 g (3.2 oz) (including cloth band) **WSD-F20A:**90 g (3.2 oz) **WSD-F20SC:**124 g (4.4 oz)

*1 CASIO test conditions

*2 GPS altitude information is used, so the indicated altitude may not exactly match the actual above sea level elevation or altitude.

*3 In order to be able to use these functions your Android phone must have the CASIO MOMENT SETTER+ app installed, and there must be a connection between the phone and watch. These functions are not supported in the case of iOS.

*4 Default: OFF

*5 Recommended. However, a WSD-F10, F20, F20S, or F20X watch that is already paired with a smartphone running Android 4.3+ or iOS 9+ can also be used.

*6 Limited functionality when connected to iOS device.

*7 Available only while the watch is connected with an Android phone.

Supplementary Information

Open Source Information

CASIO uses GPL, LGPL and other source code that comes under an open source license in this product. CASIO discloses the source code in accordance with each open source license. For source codes and details about each open source license, visit the CASIO website. Source code is provided “as-is” without any guarantees. However, this does not affect warranty conditions by CASIO concerning product defects (including defects in the source code).

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- App Store is a service mark of Apple Inc.
- Other company, product and service names used in this manual also may be trademarks or registered trademarks of others.

Regulatory Information

Your watch is a device that supports electronic way of display. To display regulatory information, perform the steps below.

1. **While the watch face is displayed, swipe the touch screen from top to bottom and then tap ⚙.**
2. **Scroll the screen downwards, and then tap in the following sequence: “System”, “About”, “Regulatory information”.**

This device complies with part 15 of FCC Rules and Industry Canada's licence-exempt RSSs. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC CAUTION

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter.

The available scientific evidence does not show that any health problems are associated with using low power wireless devices.
There is no proof, however, that these low power wireless devices are absolutely safe. Low power Wireless devices emit low levels of radio frequency energy (RF) in the microwave range while being used. Whereas high levels of RF can produce health effects (by heating tissue), exposure of low-level RF that does not produce heating effects causes no known adverse health effects. Many studies of low-level RF exposures have not found any biological effects. Some studies have suggested that some biological effects might occur, but such findings have not been confirmed by additional research. The WSD-F10/WSD-F20/WSD-F20S/WSD-F20X/WSD-F20SC/WSD-F20A has been tested and found to comply with FCC/IC radiation exposure limits set forth for an uncontrolled environment and meets the FCC radio frequency (RF) Exposure Guidelines and RSS-102 of the IC radio frequency (RF) Exposure rules.

This product is subject to the Export Administration Regulations (EAR) of the United States, and so it cannot be exported to or brought into countries that fall under U.S. Embargoes and Other Special Controls.

Frequency band and maximum output power

- WSD-F10
  IEEE802.11b/g/n:2.4GHz band≦19dBm
  Bluetooth(2.4GHz)≦1dBm
- WSD-F20 series
  IEEE802.11b/g/n:2.4GHz band≦19dBm
  Bluetooth(2.4GHz)≦10.5dBm

CAUTION

- Risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries according to the instructions.
- Do not leave the battery and WSD-F20 series in a high or low temperature environment while using, storing or transporting the battery. Explosion, flammable liquid, gas may leak.
- Battery and WSD-F20 series subjected to extremely low air pressure may result in an explosion or the leakage of flammable liquid or gas.
- Be sure to observe the points below when using this watch. Failure to do so creates the risk of heat generation, fire, and explosion.
  - Do not throw the watch into fire or expose it to heat.
  - Do not try to take the watch apart, modify it, step on it or otherwise subject it to strong impact.
  - Do not place the watch inside a microwave oven, drier, pressurized container, etc.

CASIO®

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