

**Consumer Decision Making Contest
2001-2002 Study Guide
Watches**

Why do we buy watches? Before computer microchips came on the scene, we bought them to tell time. Today watches are bought for a variety of reasons, depending on the consumer. They may be used as an investment, a collector's item, a piece of jewelry, or for other purposes. And, they may provide a wide range of added services such as a pager, timer, e-mail, alarm clock, camera or address data base. Wrist watches come in almost every imaginable size, shape, color and material, and there's something to match almost everyone's personality.

For marketing purposes, watches are categorized into common styles: dress, sports (including sub-styles of dive and pilot), designer and jewelry. In this study guide, you will be introduced to watch parts and basic information about the features of each style. Information about labeling on watches that may be viewed as signs of quality for price comparisons will also be given.

What Makes Up a Watch?

A simple mechanical wristwatch, displaying time only, has about 200 parts. Add 50 more parts for self-winding; another 20 parts for a calendar; 75 additional parts for a day/date/moon phase feature; 100 more parts for a three register chronograph; and 60 more parts for a minute repeater. Complexity adds much to the cost of a watch. A complicated watch might use 30 different sizes and patterns of screws, each requiring precision production.

Watch jewels are tiny bearings of synthetic sapphire that help reduce friction. The tiny holes in the jewels which receive the pivots of the wheels are bored to precise diameters, and are made olive-shaped to provide space for a small reservoir of oil. The oil used in fine watches must never dry, or spread, yet it must continue to lubricate over a range of temperatures, from -40 to 130 degrees Fahrenheit for a long, long time. Each and every part of a high quality watch is polished, essentially for reducing friction to an absolute minimum, and inspected many times during each stage of production. Any extra friction can easily stop a watch.

The bezel of a watch is the outer face with a sloping edge. It may be cut or faceted to reflect light for brilliance. Tritium or other illuminating agent may be used on the face of some watches to give illumination when worn in the dark. Watches may have hands of varying thickness, digital numbers showing the hour and minutes, or a single number showing the hour and marks around the edge indicating the minutes. Some watches have multiple hand sets to show more than one time zone, or to provide both time and other information such as temperature, a timer, or messages. Bands are made of many different products, such as metal, leather, plastic, rubber, or jeweled bracelets.

The general features of each watch style

! **Dress:**

- gold or other precious metal may be on edge of the watch face
- a plain bezel (no markings)
- simple dial and hands
- white dial (usually)
- leather strap with inconspicuous stitching (same color as the leather)
- thin

! **Sports:**

- heavy bezel with markings
- bold or complex markings on face
- thick hands (usually)
- casual strap (padded, prominent stitching) or heavy metal bracelet
- water resistant to at least 50 meters

! **Sports/Dive:**

- water resistance at least 100 meters
- uni-directional rotating bezel marked 0 to 60 (required)
- easily-readable black dial
- bracelet or waterproof strap (nylon or rubber)

! **Sport/Pilot:**

- plain bezel
- easily-readable black dial, with Arabic numbers at most positions
- triangle at 12 o'clock
- luminous hands and dial markings
- anti-magnetic

! **Designer:**

- distinctive case shape
- bracelet or strap integral part of design
- named designer, also usually famous for other objects (e.g., furniture, clothes)
- designer's picture appears in product brochure

! **Jewelry:**

- heavily jeweled, usually with diamonds
or
- interchangeable parts for different colors or fashion looks

Basic features in common watch styles beyond the normal seconds, minutes, hours and date indicators include:

- 24-hour dial
- Alarm
- Perpetual calendar.
- A chronograph that measures and marks time spans, such as starting and stopping time.
- A chronometer, a time measuring instrument certified for accuracy.
- Display back, allowing you to see the working parts rather than an opaque back.
- Moon phase indicator
- Power Reserve indicator
- Pulsometer or Pulsimeter... to mark the number of pulses in 15 seconds
- Rattapante, a split-second chronograph
- Repeater that sounds hours and half-hours
- Retrograde, a feature where the minute hand jumps back to zero when it hits 60, and the hour is shown as a digital number of the face
- Skeleton, showing all of the working parts from the face of the watch
- Tachometer, uses the chronograph to measure distance, showing the number of units per hour.
- Tourbillon, a rotating device to even out the effect of gravity
- Pager, integrating pager technology into a digital watch, receives both word and number messages (promoted to lower cell phone costs by getting your messages to you). One brand includes a free news service, sending news updates on the message screen. Like other paging services, ensure it provides the desired coverage area.

Comparison Factors

A fine watch runs longer between cleanings and keeps time more accurately. Mass-marketed watches must be designed to appeal to the many potential buyers, whereas fine watches sell in very limited numbers and can be fashioned in more stylish patterns. Mass production companies may produce one watch for each employee per day in contrast to specialty Swiss makers whose annual production is dozens of watches per year.

Consumers may associate the label “Swiss made” with quality. Swiss production has long held the reputation for technical quality, accuracy, reliability, water-resistance and shock resistance, while also being aesthetically elegant or original in design. The Swiss are not the only high-quality watchmakers. They are competitive to maintain their leading position, and have negotiated through the World Trade Organization a TRIPS agreement regulating the use of the name ‘Swiss’ for watches. Minimum conditions have to be fulfilled before a watch merits the “Swiss made” label, reflecting that at least 50% of the components of the movement must be manufactured in Switzerland, and the assembly work on the movement and the watch itself (fitting the movement with the dial, hands and various parts of the case) and the final testing of the movement are to be done in Switzerland. When manufacturers use a “Swiss Quartz movement” or other Swiss parts, this indication may only appear on the movement, and never on the outside of the watch.

In general, a quartz watch yields incredible accuracy that is far superior to any of its mechanical parts. It has fewer working parts than a mechanical timepiece, which reduces the tendency to break down or stop working. Quartz watches derive their name from the tiny sliver of quartz which divides time into equal segments. Distinguishing a quartz watch from a mechanical watch is easy. The mechanical watch has a second hand that sweeps around the dial whereas the quartz second hand jumps from one second to another. Also, a mechanical watch ticks while a quartz watch is virtually silent.

The Federal Trade Commission sets standards for watches claiming to be shock resistant, anti-magnetic and water resistant. Before purchasing a watch, be sure that you are aware of the meanings of these terms. Being shock resistant means that the watch will continue working after being dropped three feet onto a hardwood surface. The FTC considers a watch anti-magnetic if it can pass through an electrical field of 60 gauss (electromagnetic units) for at least five seconds in two different positions, and maintain its accuracy. A water resistant watch should ensure that the watch case is properly sealed and will allow no moisture to enter under test conditions; it does not mean that it will resist water in every situation, but will be protected from moisture under “normal” conditions.

Vigilant consumers have a key role in controlling quality. Choose reputable dealers to make your watch purchases. Avoid being tempted by deals that are dubious, or in other words, deals that are “too good to be true”! You might be amazed by the number of “rip off” or copycat watches on the market today, so it’s best to protect yourself from unscrupulous vendors.

In addition to cost and quality, consumers also need to examine the warranty and service terms that come with a watch. What parts and service are covered by the warranty? Can the owner change the battery without canceling the warranty, or must an authorize jeweler replace the battery? Where does the watch have to be taken or mailed for repair or warranty work and what is the customer’s cost?

When special features are bought, know their limits. If paging service is included, is it available from the provider in your service area? If a digital camera is included, what is the quality of the photo? What is the capacity of computer and data base features, if included?

The bottom line is to know the amount you can or want to spend, what features are necessary for the watch to meet your needs, the benefits and limits of a warranty and service, and the reputation of the person selling you the watch. Think about the reason you are selecting this particular timepiece and ask yourself the following questions: How long do I plan to use it? Is it a keepsake, for a specific function, or to be like a piece of jewelry? And, does it have the features I want it to have?

As technology changes, so do the added capacities of watches. There no longer just an instrument to tell time. Don't be surprised at the features you will find on the watch of the future! It may make James Bond look old fashioned.

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