

This metal-cased television was the world's first direct view portable. Direct view televisions have a cathode ray tube with a scanning electron gun. The electron gun paints the picture, line-by-line on the inside of a phosphor-coated screen. Direct view televisions are limited in size to about 40 inches (diagonally).

From Harry Poster Vintage Televisions

JVC Video Sphere Portable Television

JVC introduced some of the first portable televisions with cases made from the popular new material of the 1960's plastic. They also celebrated the world's fascination with the conquest of space through introduction of a series of products modeled after astronaut gear.

From Harry Poster Vintage Televisions



Panasonic TR-1030P Portable Television late-1970's

Portable television sets starting "going small" in the late 1970's. As illustrated by the integration of an AM/FM radio into this 1 1/2" black and white set, they also began a trend that continues today—the convergence of different communications devices.

From Harry Poster Vintage Televisions

Sentinel "Suitcase" Portable Television 1948

Considered the 1st portable television—even though you had to plug it in—this black and white set has a 7" screen. Its "suitcase" style is covered in fabric and comes with a convenient carry handle.



"Space Commander" Remote Contro 1957

Zenith introduced several generations of remote controls in the 1950's—including one version called "Lazy Bones" and another that was wired to the television set. Robert Adler is the inventor of the "Space Commander," considered to be the first practical remote control.

Courtesy of Zenith Electronics Corporation



Iconoscope GE Type 1850A Cam<mark>era Tube</mark> Late 1930's and early1940's

The iconoscope was the first of a series of practical camera tubes invented by Vladimir Zworkin while he worked for Westinghouse and RCA in the 1920's through 1950's. This was one of the earliest commercially available camera tubes. In 1948 it sold for \$540. That same year an average house could be purchased for \$3000.



This RCA 8D21 had a 5000 watt RF output to 213 MHz. These dual tetrode tubes were internally water cooled and served as amplifiers in early VHF transmitters



Cathode Ray Tube Pre-WWII

Three inch oscilloscope cathode ray tubes, such as this, had many uses during and after WWII. One typical use in television was to produce printing on television images in other words a predecessor to the computerized character generation used today. On this tube you can see the electron gun, deflection plates, and phosphor screen.



RCA 5820 Image Orthicon Camera Tube 1950's

This camera tube was one of the first to have enough light sensitivity that it could pick up outdoor events at night. Broadcasts of night baseball greatly increased the public's interest in getting their own television set.

On loan from Charles Rhodes



Jenkins Model 100 Radiovisor 1931

This set was made by the Charles Jenkins Co. in early 1931. It was available as a kit - the model RK-1- or ready made. Three of these sets survive today.

This particular set was used at Kansas State University. W.R. Mitchell, an electrical engineering student from Salina, acquired the Jenkins disk and built what he claimed was the first superhetrodyne television receiver. It was completed in October, 1931, and Mitchell reported to the local paper, *"It has given excellent visual reception from a station in Chicago, and fair reception, at times, from Washington, D.C., New York, and Boston stations."*

On loan from the Early Television Foundation



CBS Color Wheel 1950

CBS's Peter Goldmark suggested the first complete color system. His system was mechanical and had a wheel spinning in front of the television tube to simulate color. This wheel was probably part of the converter that the CBS network made in 1950. The wheel was located about 12 inches in front of the screen, and the picture was viewed through a lens in front of the wheel.

On loan from the Early Television Foundation





Convergence between varied entertainment and information technologies began early in the United States. In this photo, workers at a Chicago production plan are assembling sets that included a B&W television, an AM/FM radio, and a record turntable.

Courtesy of Zenith Electronics

Vision by Radio: Radio Photographs, Radio Photograms

Charles Francis Jenkins Jenkins Laboratories 1925

Visit the FCC Library (TW-B505) for more books on television technology.

Television. The Eyes of Tomorrow William C Eddy Prentice Hall, 1945.

Visit the FCC Library (TW-B505) for more books on television technology.

Understanding Television

Discovery Channel School 1997

"This 50 minute documentary shows you what goes on behind the screens of the world's one billion TV sets? From the invention of the first crude black and white TV to American Philo T. Farnsworth, you'll trace the development of the medium with the help of scientists, historians and industry executives."

Visit the FCC Library (TW-B505) for more materials related to television technology.