Hoffman easy vision television

Vision problems from screen use. Natural vision therapy eyewear review. Hoffman easy vision. What is the best tv for vision impaired. Hoffman easy vision tv. Which tv screen is best for eyes. Vision tv problems.

Product information: Hoffman Radio Corp.'s "Easy-Vision" TV model, manufactured in Los Angeles, CA, USA. The device features a superheterodyne principle and operates on alternating current supply (AC) at 115 volts. Key specifications: * Model number: Easy-Vision Lens 612 Ch= 142 * Dimensions: 20 x 16.5 x 22 inch / 508 x 419 x 559 mm * Wave bands: VHF (given in the notes) * Power consumption: 140 watts * Loudspeaker type: Permanent Magnet Dynamic (PDyn) and moving coil Description: The TV is a black and white, 12-inch round CRT model with US standard VHF tuner, mahogany finish, and doors. It has an AM/FM radio feature and a unique "Easy Vision" safety glass tinted yellowish-green. Restoration details: * Chassis cleaning using soap and water, followed by oven drying * Replacement of electrolytic and paper capacitors * Replacing the original picture tube with a new 12LP4 model * De-Oxit application and lubrication of controls I recently acquired a Hoffman Model 7M112 tabletop TV, which is an interesting early 1950s model. Although the cabinet may not be aesthetically pleasing, it surprisingly offers a bright picture. This TV was produced by a small manufacturer based in Los Angeles, and I found it on Craigslist for $20. The set features a 17-inch picture tube and has a unique cube shape, making it larger than expected despite being designed as a tabletop model. Compared to my DuMont RA-113 console, which also has a 17-inch screen, the Hoffman TV is quite similar in size but heavier due to its solid construction. The controls are simple, with knobs for power/volume and contrast on one side and channel selection and fine tuning on the other. Behind a small door lies three additional knobs for vertical hold, brightness, and horizontal hold. The cabinet is made of heavy Masonite with light wooden framing and a pegboard bottom. One distinctive feature of this TV is its tinted screen, which is part of the Easy-Vision system introduced by Hoffman. This glass was designed to reduce eye strain but has been largely unsuccessful in gaining widespread adoption among other manufacturers. In practice, however, the tint's effect on picture quality is minimal, barely noticeable as it dimly reduces the image. A closer inspection revealed a brightener hanging from the picture tube socket, which is often used to extend the life of an almost worn-out picture tube. I'm curious to see what my CRT tester says about this tube's condition. An old television set was analyzed, showing its tube layout on top of the chassis with three more hidden underneath. The TV uses solid-state components like diodes and selenium rectifiers in the power supply. A service manual (Sams 205-5) is referenced for parts identification by their numbers. Scans of the schematic are provided in three parts. The set lacks circuits for AGC and DC restoration, features common on higher-end TVs, but has three IF amplification stages. The overall electronic design and cheap pressboard cabinet suggest an inexpensive television. However, a simple design doesn't necessarily mean bad performance. The chassis was removed to reveal the tube layout and hidden components. A sturdy turret-style tuner is visible, along with a high-voltage rectifier tube. Six controls are on the back panel: height, vertical linearity, focus, width, horizontal centering, and a three-position range switch for IF amplification. The range switch allows adjusting the degree of IF amplification for stronger or weaker stations. The transformer's air gap size is adjusted by moving its core in and out, which directly affects the high-voltage output level. Although referred to as a "width" control, it actually influences both width and height. Fortunately, there's an independent control for adjusting the height, allowing for fine-tuning. The speaker cone has three small punctures that can be easily repaired with tea bag paper and flexible glue. It's unclear how these holes were made, but they may have been caused by careless handling during a previous repair. To test the TV on the workbench, the speaker must be removed from the cabinet and plugged in, as its field coil is part of the 250-volt B+ circuit. Before investing time into restoration, I wanted to ensure the CRT was usable. After testing it on my Sencore CR70 tester, the emission looked strong, which is excellent news considering a new CRT would be costly. The TV has been serviced before, with various brand-name tubes and a modern resistor under the 1B3GT high-voltage rectifier tube socket. However, some recent replacements are incorrect, including a modern electrolytic capacitor and two power resistors wired in series, which deviate from the schematic's specifications. The author has started working on their TV restoration project and is cautious about potential issues. They will keep an eye out for linearity problems once the TV is functional again. The replacement of the electrolytic capacitor has raised concerns due to its high capacitance value, which may cause problems if the old capacitor still works properly. The picture tube, a relic of an obscure California company, holds a fascinating history that spans several decades. The Rauland company, founded by Norm Rauland in 1924, played a significant role in the development of television technology. Through various acquisitions and mergers, including the purchase of Baird Television in 1942 and Zenith in 1948, the company's legacy continued to shape the industry. At its core, the picture tube uses an ion trap magnet to prevent "ion burn" on the screen. When electrons emitted by the electron gun strike the phosphors, they also emit ions that can cause damage. By positioning the electron gun at an angle and using a magnetic field, the ions are redirected away from the screen, allowing the lighter electrons to light it up. The Rauland patent drawing illustrates this concept, showing how the tube elements are fixed at an angle in the neck of the tube. The permanent magnet redirects the electron stream to follow a straight line perpendicular to the face of the screen, resulting in a lit-up display. While the picture tube may seem like an obscure relic, its history is deeply rooted in the early development of television technology. By understanding how it works and the innovative solutions used by companies like Rauland, we can appreciate the complexity and ingenuity that went into shaping our modern entertainment systems. I recently experimented with my vintage TV's ion trap magnet to get a better look at some mysterious green glow. Moving the magnet around allowed me to capture some amazing images, considering the TV was still in rough shape. This newfound image quality enabled me to take a closer look at the green glow and its impact on the picture tube's brightness. As I adjusted the magnet, the green glow dimmed and the screen brightened up. You can see this process in action through the animated .GIF image below. When the glow decreased, the picture tube became brighter. The orange glow is just the normal color of the tube's filament. I also managed to capture a photo of the phosphor layer. The fluorescent coating is almost invisible under normal lighting conditions and doesn't glow very brightly. I might not have noticed it if I hadn't tested the TV in near darkness, looking for any faint light from the screen. Out with the Bad, In with the Good I replaced all the remaining paper capacitors and a few electrolytics, making sure not to miswire anything along the way. The TV's performance continued to improve, becoming more stable and watchable in small increments. I also replaced some out-of-tolerance resistors. One fix that would have been easy to overlook was the original 120K resistor (R71) that connects to the horizontal oscillator tube's plate. The repairman had wrapped a 100K resistor around it in parallel, but after separating them, I found that the original had drifted up to 131K. When I restored the correct value, the TV worked even better. The vertical linearity couldn't be adjusted correctly until I replaced the funky power resistors that I noticed earlier. At a local surplus store, I found two resistors that added up to 8.7K, the rather unusual value specified for R62. These resistors looked a little funky, but now the vertical linearity adjuster has a normal range. At this stage in the project, the high voltage supply was stable, the picture was bright and focused, the contrast and brightness controls operated within normal ranges, and the height and vertical linearity were just right. The sole remaining issue involved width and horizontal linearity. The width control worked as expected, but the maximum width wasn't quite wide enough to fill the screen mask. The horizontal linearity was also a little off. In this photo, notice how the squares in the rightmost part of the screen are compressed, more like rectangles than squares. When I checked my old Hoffman TV's horizontal linearity, I found that most people wouldn't notice a difference while watching a program. However, some early TVs had issues with less-than-perfect width, which can cause noticeable blank strips between the image and screen bezel when viewed at an angle. To address this issue, I experimented with adjusting the high-voltage level on the second picture tube's anode. While the manual called for 11.5KV, I found that a lower voltage was sufficient as long as the contrast was strong. One suggestion from the VideoKarma forum was to increase the size of capacitor C72, which is connected between pins 3 and 5 of the damper tube. Wiring one of two 82pf capacitors rated for 5KV in place of C72 improved linearity but also increased overall width. Adding a second capacitor, however, reduced the high-voltage level too much, affecting screen brightness. Trying a smaller addition, I found that a combination of 39pf and 82pf capacitors worked well, allowing me to adjust the width while maintaining acceptable image quality. Herman Leslie Hoffman was an American businessman born in 1906 who founded Hoffman Radio from scratch after it went bankrupt, and eventually became one of the largest west coast producers of televisions. He pioneered work on practical photovoltaic cells, aircraft navigation systems, radio and television products, philanthropy, and major donor to the University of Southern California (USC). Les Hoffman continued producing televisions until 1977. To cut costs, he utilized surplus materials from company and government stores after World War II. The TVs featured a yellow-green tinted screen due to the use of low-priced Plexiglas, which became known as "Easy Vision." This marketing strategy took advantage of concerns about eye strain from prolonged TV viewing. Hoffman Electronics played a significant role in the development of solar energy. Their photovoltaic cells were used in Vanguard 1, launched in 1958, marking the first major application of solar power. From 1950 to 1960, Hoffman diversified through startups and acquisitions, forming divisions for consumer products, semiconductors, and military equipment. The company's early involvement with military production dates back to World War II, where they produced radar, communications, countermeasures, navigation, and ASW equipment. The invention of the transistor in 1948 influenced Hoffman's interest in solar cells, which he further developed, improving efficiency from 2 percent in 1951 to 14 percent by 1960. Hoffman's achievements included powering Vanguard 1 with solar cells and reducing production costs to make them marketable. He received the David Packard Medal of Achievement for innovation in 1959 and was a member of the Electronic Industries Association (EIA) board of directors that same year. The success of Vanguard 1 led Hoffman to expand the use of his solar cells, as seen in Explorer 6, which used over 9,600 Hoffman solar cells in its launch in 1959. Innovative Radio Designs and Electronics Pioneerings. Hoffman Electronics emerged as a forefront company in designing cutting-edge electronics, particularly in radio technology. Their creation of solar-powered transistor radios like the P-411 Solaradio (1956), the P-706 Trans Solar radio (1959), the P-709X (1961), and the 719 (1965) showcased their commitment to innovative solutions. Their specialized Military Division excelled in air navigation, communications, and radar systems, with a notable achievement being the development of Tactical Air Navigation (TACAN). This technology enabled aircraft to receive vital information on bearing, distance, and other related data through ground- or ship-based transmitter and receiver stations. TACAN's standard use in U.S. military aircraft, including the Space Shuttle program, underscores its significance. The growth of Hoffman Electronics' Military Products Division in the 1960s was marked by successful recruitment strategies targeting engineering students at nearby universities, leveraging their proximity to renowned institutions like Caltech, UCLA, USC, and others. This approach not only expanded their talent pool but also contributed to their reputation as a forward-thinking employer. A notable event during this period was the commissioning of Isaac Asimov's short story "My Son, the Physicist" for the February 1962 edition of Scientific American. This collaboration showcased Hoffman Electronics' commitment to supporting and engaging with the broader science community. Following Les Hoffman's passing in 1971, the corporation underwent significant changes. In 1978, Gould Electronics acquired most of its divisions, retaining the Military Products Division. This division eventually became an independent company called NavCom Defense Electronics Inc. in 1988. In contrast, Hoffman Video Systems remained under the legacy of Les Hoffman and continued to thrive, evolving into Anderson Video. The H. Leslie Hoffman and Elaine S. Hoffman Foundation made substantial contributions to education, particularly through their support for the University of Southern California (USC). Their philanthropy included major donations and matching contributions totaling over $2.5 million, which significantly impacted USC's business and medicine programs. The H. Leslie Hoffman Hall at the USC Marshall School of Business and the Elaine S. Hoffman Medical Research Center at the school of medicine are two buildings named after the founders, Jane Hoffman Popovich and her husband J. Kristoffer Popovich. Both graduated from USC in 1965 with a BS degree. The couple continued to be involved in the academic growth and stature of USC after the death of their parents. They had one daughter, Jane, who married J. Kristoffer, who ran Hoffman Video Systems as a separate company after the Gould Electronics purchase in 1977. Les Hoffman died in Switzerland in 1971, and Elaine S. Hoffman died in San Marino in 1985. Herman Leslie Hoffman, a physician and television entrepreneur, was featured in a 1953 advertisement for the Hoffman Easy Vision television, claiming that watching TV could cause eyestrain.