



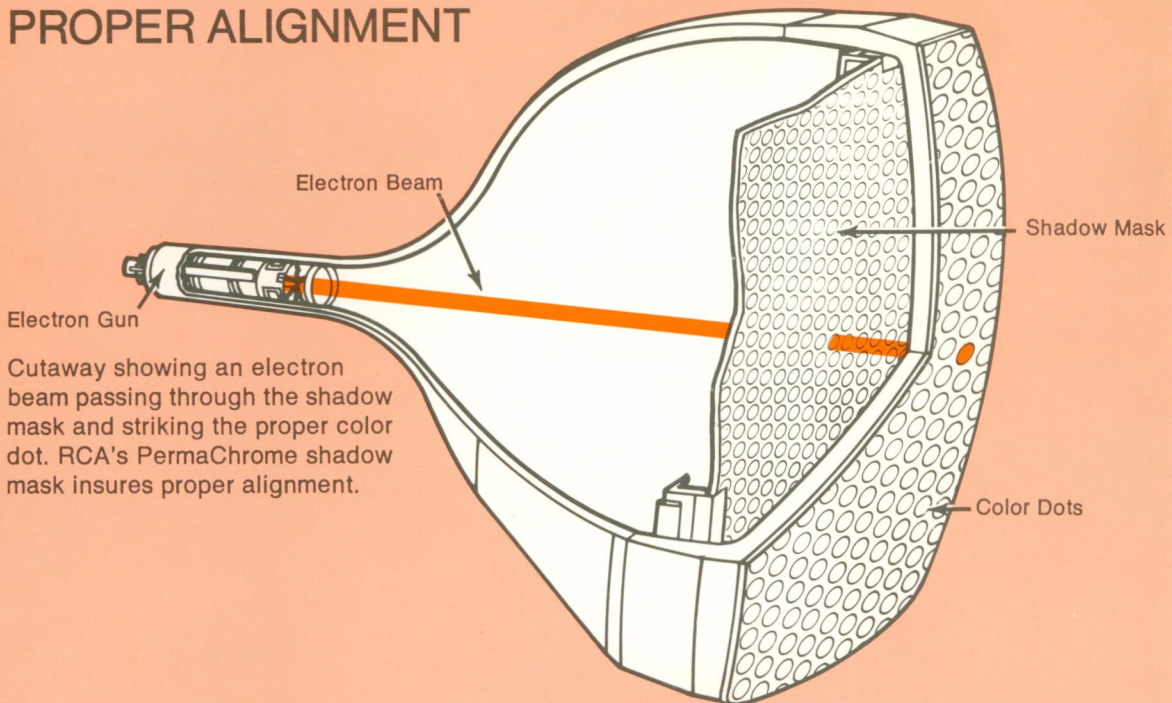
What is RCA's PermaChrome Shadow Mask?

RCA's PermaChrome temperature-compensated shadow mask assembly eliminates fading, shifting or blurring of color as the picture tube warms up. Read the next few pages to learn the important details of this vital color television feature.

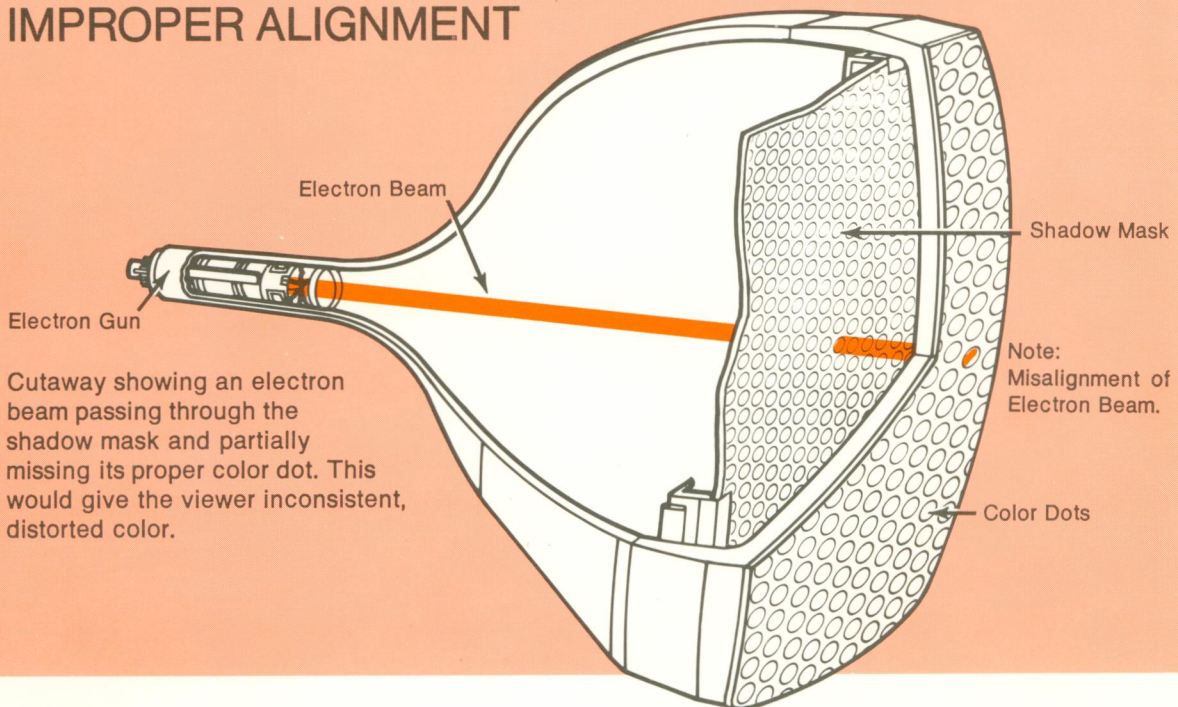


Retail Salesman's Development Program

PROPER ALIGNMENT



IMPROPER ALIGNMENT



PermaChrome gives you consistent, undistorted color!

Why is PermaChrome Important?

Without PermaChrome the color picture tube could lose consistent color. This could happen because temperature changes that take place inside any picture tube, affect the picture tube's shadow mask.

Maintains Critical Color Alignment

As you can see from the illustration, top left, the shadow mask is located in the picture tube directly behind the phosphor-dot screen.

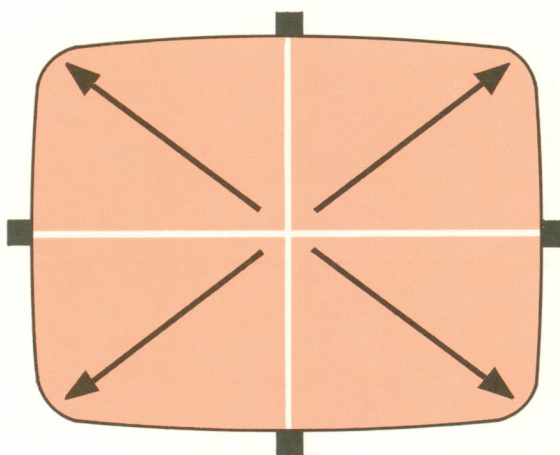
The shadow mask must be precision-mounted so that its many thousands of tiny openings remain properly lined up between the electron gun and the color dots. If the openings are not properly aligned, as illustrated bottom left, an electron beam fired from the neck of the tube might partially miss, or even strike a wrong color dot. This would show up as shifting, fading or blurring of the color on your screen.

Simplifies Color Alignment

Before PermaChrome, color alignment was difficult for a serviceman to "set up" properly. He had to guess how much to compensate for shifting of the shadow mask that occurred an hour or so after the set was turned on. But the compromise has been eliminated. Compensation to prevent shifting of color is built into every RCA picture tube with PermaChrome.

How does RCA's PermaChrome Shadow Mask Work?

The name PermaChrome comes from the words "permanent" and "chroma" (for color). Permanent color is what we're after—color that won't fade, shift or blur after hours of continuous viewing. To accomplish this, we allow for expansion of the shadow mask. If proper allowance for expansion is not made, the shadow mask will bow undesirably as the tube heats up.



RCA's picture tube includes the PermaChrome shadow mask which is symmetrically mounted at four points. Each of these suspension points includes a temperature sensitive strip of metal which responds to an increase in temperature. This allows even, uniform expansion of the shadow mask as the picture tube warms up.

What are the consumer benefits of RCA PermaChrome Shadow Mask?

- **Consistent Color Rendition**

PermaChrome prevents distortion of color as the picture tube warms up.

- **Less Service Required**

PermaChrome eliminates additional need to readjust color alignment, keeps color from fading, shifting or blurring as the picture tube warms up.

