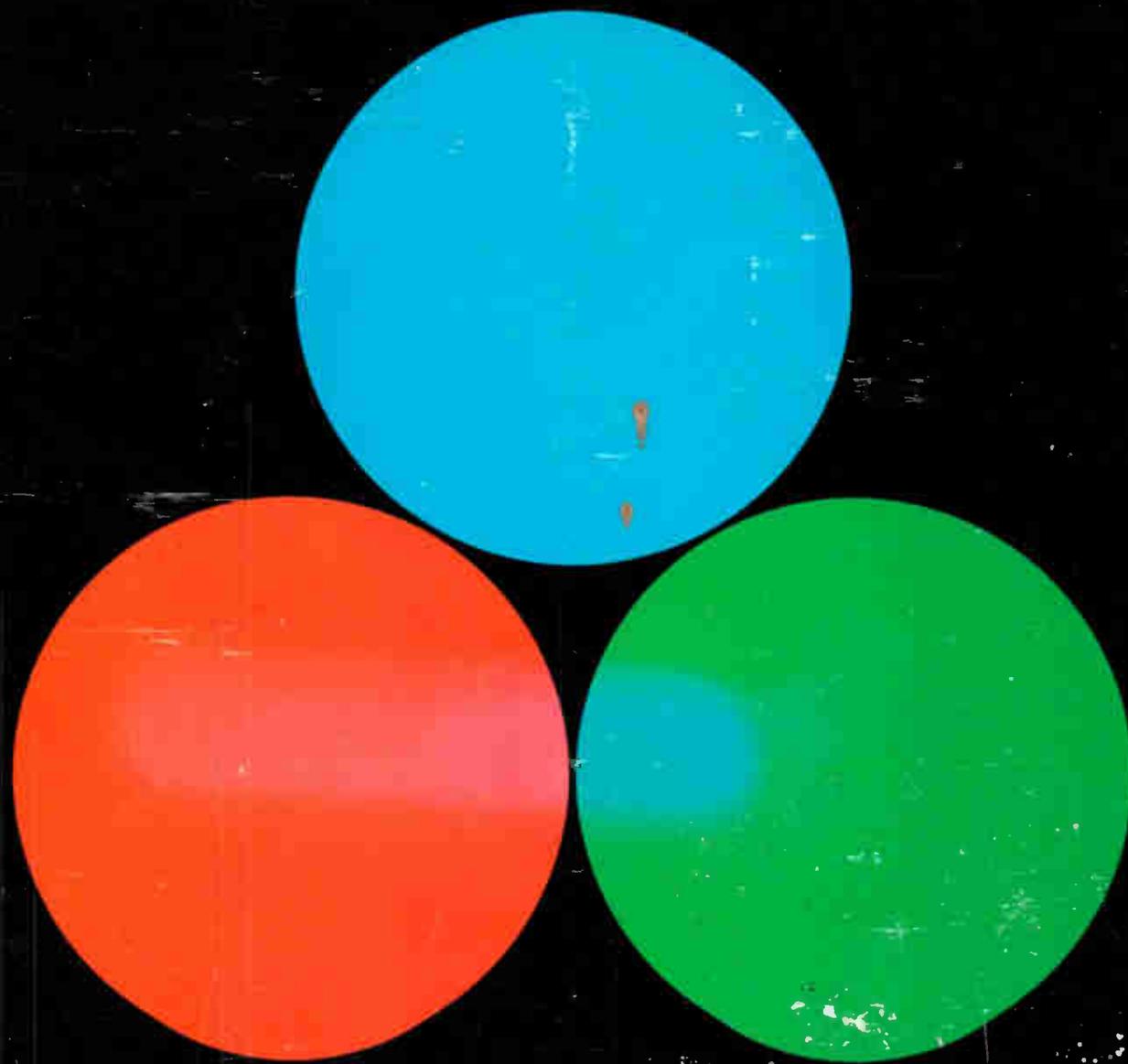


*Another
Innovation
from the
Leader
in Color
Television*



*RCA proudly announces the first major advancement
in color picture tubes since the introduction of Hi-Lite*

Perma-Chrome

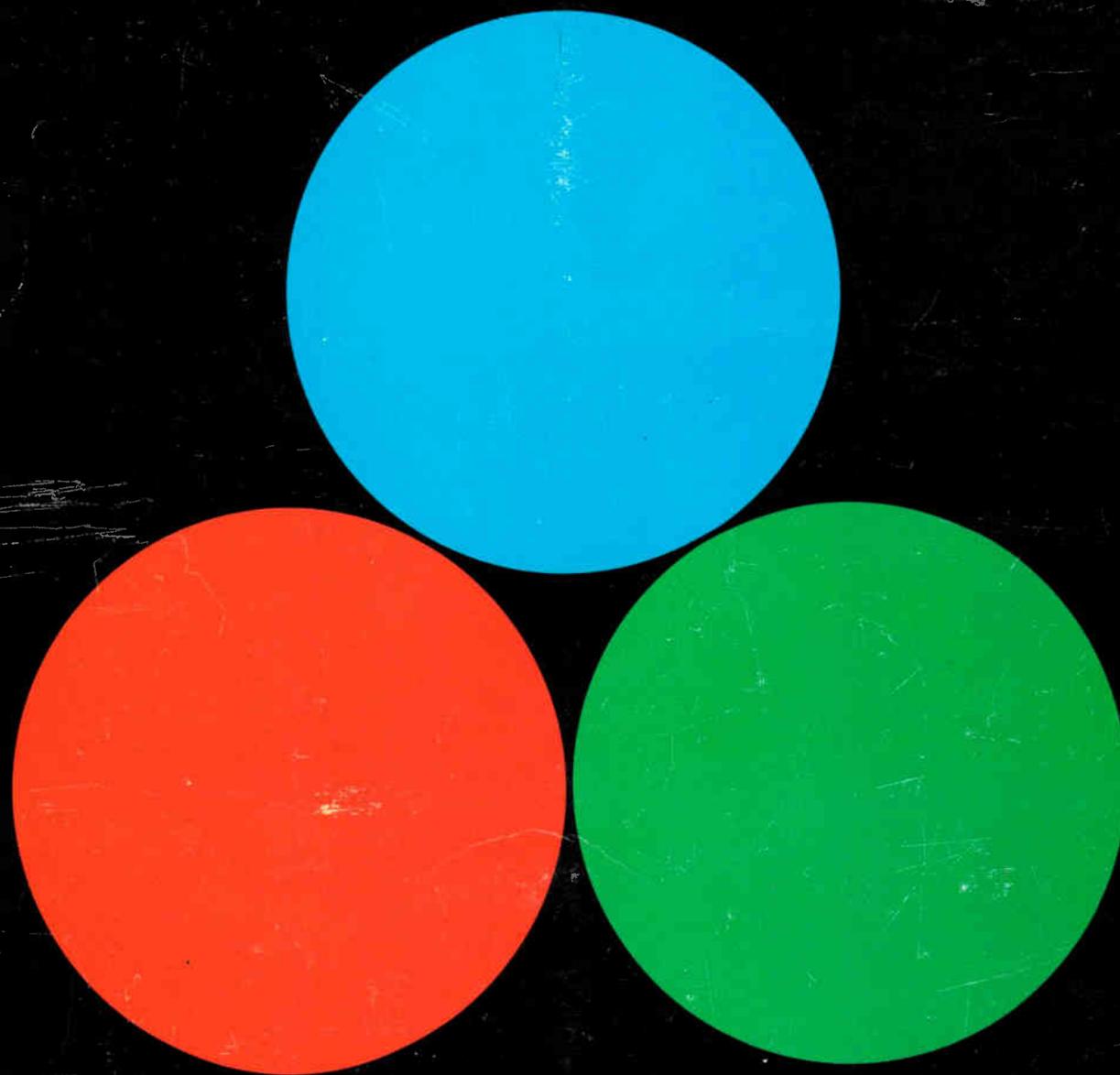
*Turn-On/Locked-In Color Purity provided by
RCA's new temperature-compensated shadow-mask assembly.*

*RCA's 25-, 19- and 15-inch rectangular Hi-Lite color picture tubes also take advantage
of RCA's four-point shadow-mask mounting assembly system*

- novel manufacturing system which accurately adjusts and sets the shadow-mask
position relative to the screen • unique light-house lenses
and screen printing techniques and • advanced slurry screen application process.*

*Result: Without guesswork • Without chancing customer dissatisfaction
You can quickly, positively and accurately adjust Hi-Lite Color Picture Tubes with
Perma-Chrome to the full potential of their rare-earth-phosphor screen.*

*No longer must you thermally stabilize rectangular color picture tubes
at room temperature and preheat the shadow mask a predetermined time to achieve
acceptable performance. From cold turn-on throughout normal operation
at temperature equilibrium, RCA's Perma-Chrome (permanent color) performance
will provide: • optimum color purity • optimum white uniformity
• maximum rotational tolerance*



RCA Electronic Components and Devices, Harrison, New Jersey



The Most Trusted Name in Electronics

25"

*Rectangular Hi-Lite
Color Picture Tube with
Perma-Chrome*



19"

*Rectangular Hi-Lite
Color Picture Tube with
Perma-Chrome*



15"

*Rectangular Hi-Lite
Color Picture Tube with
Perma-Chrome*



25"

*Rectangular Hi-Lite
Color Picture Tube with
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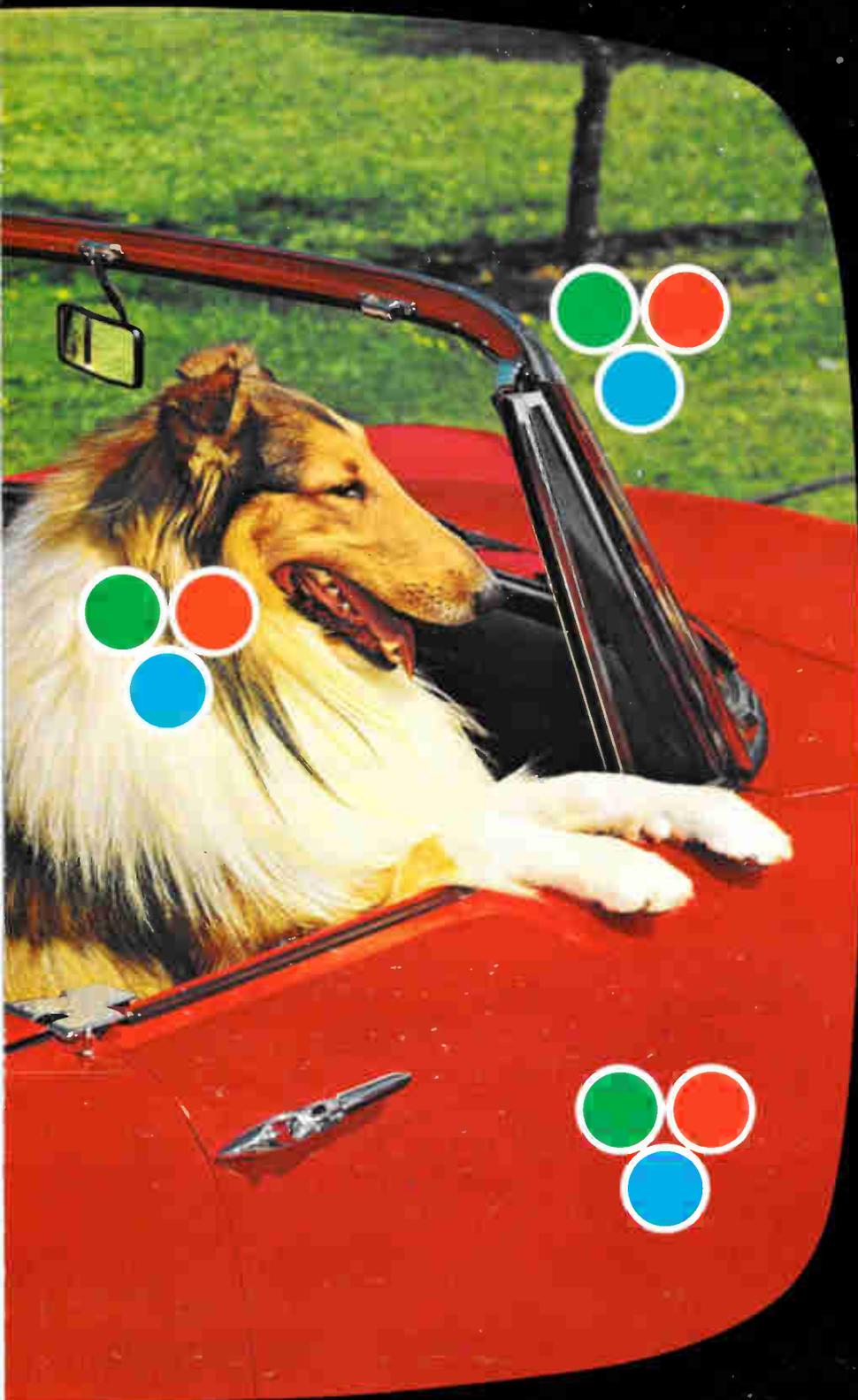


*RCA's new temperature-compensated shadow-mask assembly eliminates the problems of shadow-mask expansion which have limited the attainment of the full potential of rectangular color picture tubes. The new **Perma-Chrome** method of mounting the shadow mask provides the answer to a twofold tube-adjustment predicament:*

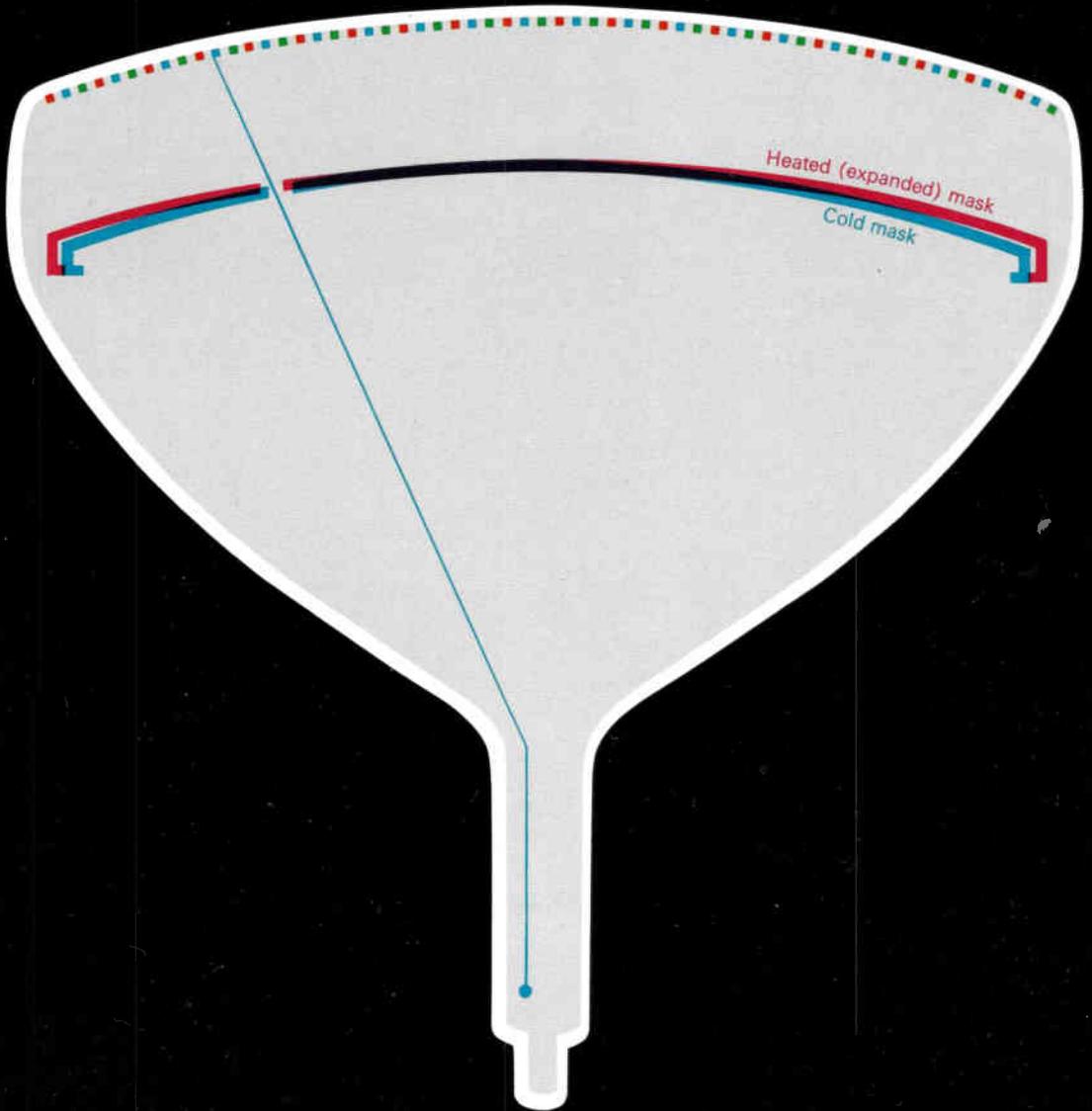
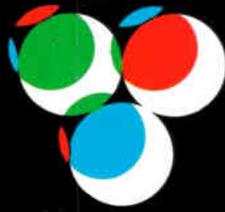
- no longer need you wait an appreciable length of time for rectangular picture-tube warmup so that you can adjust to a "guesstimated" yoke position which, upon tube temperature stability, may develop an acceptable color picture.
(Such tube temperature stability normally is not reached until one-and-a-half hours after turn-on.)*
- no longer need you risk customer displeasure should your "guesstimate" lead to distorted color values...before or after temperature stability is attained.*



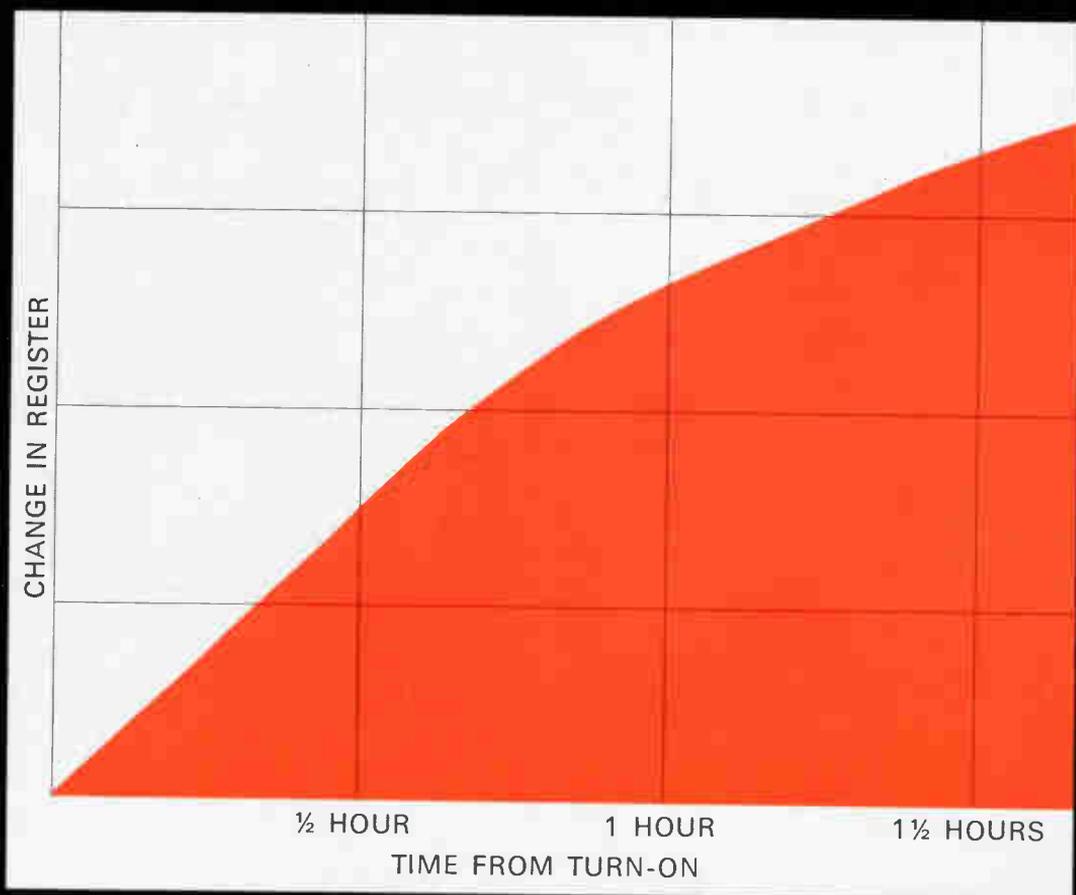
Rectangular color picture tubes with out *Perma-Chrome* chance misregister, color impurity and white non-uniformity. As indicated by the enlarged insets of phosphor-dot trios and photographically-simulated television picture, expansion of shadow mask during warmup of rectangular Brand-X tube can destroy original alignment between electron-beam trios and phosphor-dot trios.



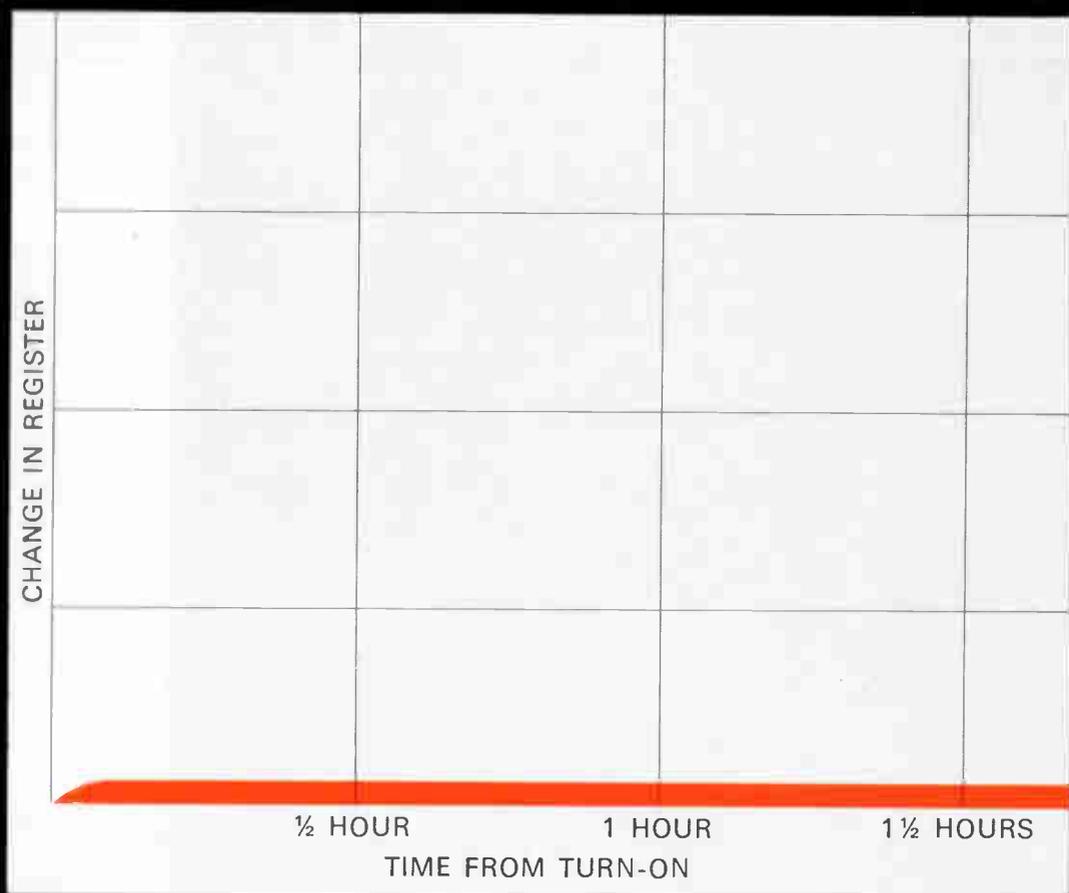
RCA's Hi-Lite rectangular tubes with *Perma-Chrome* make it possible to obtain television pictures with locked-in register, optimum color purity and white uniformity. As illustrated by enlarged insets of phosphor-dot trios and photographically-simulated television picture, *Perma-Chrome* construction locks electron beams and phosphor-dot trios in stable alignment from turn-on of Hi-Lite tube throughout tube-usage period.



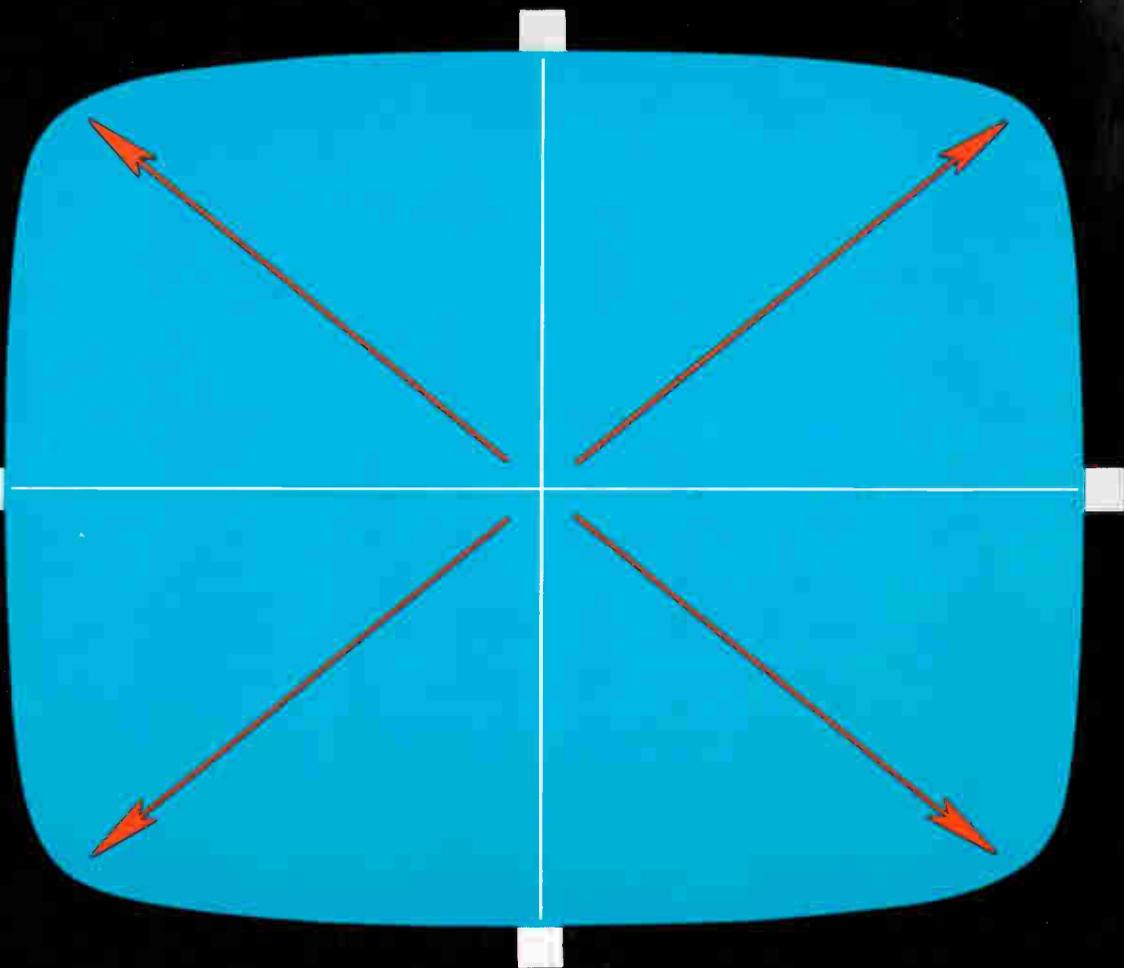
Exaggerated drawing of cross-section of rectangular Brand-X tube shows shadow-mask expansion and change in beam-landing register.



Change in register of electron beam and phosphor dot versus time for rectangular Brand-X tube using three-position shadow-mask mounting.



Change in register of electron beam and phosphor dot versus time for RCA Hi-Lite Color Picture Tube with *Perma-Chrome*.



Four-position shadow-mask mounting of RCA's Hi-Lite Tube. Arrows indicate uniform temperature expansion from geometrical center of mask.

mask assembly...the apertures of the mask locked "on target" with their respective phosphor-dot trios.

*RCA's Hi-Lite Color Picture Tube with **Perma-Chrome** is a distinct advancement over other rectangular color picture tubes which employ a three-position non-symmetrical mounting of the shadow mask. (By the design limitation of the three-position mounting in a rectangular tube, shadow-mask expansion develops from a point other than the geometrical center of the mask.)*

Perma-Chrome — an added attribute of *Hi-Lite Color Picture Tubes* — logically comes from the proven leader in color television . . . *from RCA:*

- *pioneer of color TV*
- *developer of the 21-inch round color picture tube, which created the overwhelming demand for color television that today exceeds the industry's manufacturing capability*
- *manufacturer of three rectangular color-TV tube sizes — 25, 19 and 15 inch*
- *the leading manufacturer of color-TV picture tubes*

Look to RCA

RCA will continue to set the pace in product development that assures you — and your customers — the very finest in color television.

*RCA Hi-Lite Color Picture Tubes with
Perma-Chrome offer immediate
multifold benefits:*

- *appreciable savings in tube setup time, since you can completely and reliably adjust a Hi-Lite rectangular color picture tube to optimum performance within minutes of turn-on. This may afford set manufacturers the means of increasing daily output of color-TV receivers.*
- *elimination of tube-setup errors due to shadow-mask expansion.*
- *assurance of full benefit from color-set "auto-degauss" feature.*
- *virtual elimination of need for tube-setup adjustment upon set delivery to buyer.*
- *customer satisfaction because Perma-Chrome performance will continue to entertain television viewers with all the true colors of life whatever their set turn-on/off practices.*

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in color picture tubes since the introduction of Hi-Lite*

Perma-Chrome

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