

**IMPORTANT
INFORMATION**

GENERAL ELECTRIC SUPPLY CORP.

Allentown — Reading — Scranton — Wilkes Barre

RADIO
BULLETIN No. 48-147

November 5, 1948

TO: GENERAL ELECTRIC TELEVISION DEALERS

We have been inspecting the horizontal output transformers which have been returned to us by the dealers as defective items. We find that a good percentage of the so-called defective transformers returned are actually not defective. It appears that the horizontal output transformers have been assumed to be defective whereas the actual trouble may have been caused by either an open 2200 uuf. capacitor in the 6BG6 plate lead or by a leaking hi-voltage capacitor. The latter can be detected by audible arcing through the capacitor with resultant tearing of the picture.

In investigating several complaints regarding drifting of the horizontal blocking oscillator in the Model 810, we find that the trouble was due to the .02 paper capacitors in the grid circuit of the horizontal a.f.c. control tube. This paper capacitor has been found to change its leakage characteristics with temperature.

In our production we have changed this capacitor to 2200 uuf. mica and we recommend that this substitution be made in any receivers where this complaint is noted. This particular capacitor appears in the service notes under symbol C 47.

Carbon tetrachloride must not be used on the RCY-046 tuning capacitor used in our current model television receivers. Carbon tetrachloride is a solvent for the molded compound used to fabricate this tuning capacitor. The use of carbon tetrachloride will damage the capacitor beyond further use. If cleaning is necessary, alcohol should be used instead of carbon tetrachloride.

We have changed the audio IF alignment frequency on the model 810 in factory production from 21.9 megacycles to 21.8 megacycles.

Primarily, this change has been made due to local conditions where a strong FM station is operating near 93.9 megacycles. This 93.9 megacycle signal combines in the head end unit with the video carrier of television channel four, producing an interfering IF signal in the video IF range causing a herringbone pattern on the screen. Changing the audio IF from 21.9 to 21.8 causes the interfering IF signal to fall outside the IF pass band.

This change does not affect previous production, and it should not be necessary to realign any receivers unless the aforementioned interference is prevalent.

All future shipments of the model 810 will be aligned to the 21.8 megacycle audio IF frequency. Permanent service notes on the 810 are now in hands of all General Electric Television Franchise Dealers. These permanent service notes will cover the new alignment frequency in detail.

Wm. H. White
Wm. H. White
Radio Service Dept.

GENERAL  ELECTRIC
Electronic

TELEVISION SERVICE BULLETIN

RSM-3, NO. 25.

NOVEMBER 1948

IMPORTANT: BRING YOUR SERVICE NOTES UP TO DATE.

SUBJECT: TELEVISION SERVICE SUGGESTIONS

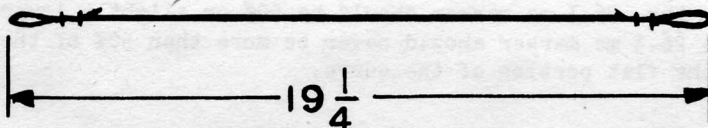
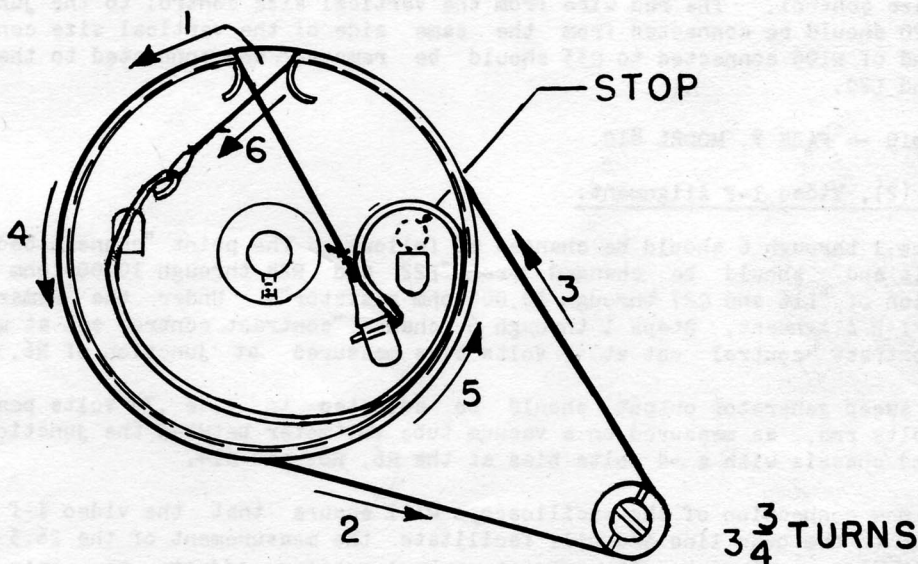
STRING TUNING DRIVE, MODEL 810.

The tuning control on the Model 810 has been changed from a rubber pulley friction drive to string drive. This was done to eliminate a small amount of backlash which resulted in complaints of critical tuning adjustment when operating on the high frequency channels.

When making this change-over, it is necessary to remove and discard the rubber tuning control pulley, the tuning drum, and the knurled tuning control concentric shaft.

The following new parts are necessary to make this change, and are assembled as shown in the figure:

1	Tuning Shaft	Cat. No. RMU-048	\$0.25
1	Pulley and Hub Assembly	Cat. No. RMW-045	.45
1	Cord Tension Spring	Cat. No. RMS-118	.10
	Dial Cord	Cat. No. RDC-032	\$2.50/25 yd.



VERTICAL HOLD CONTROL, MODEL 810.

Normal operation of the vertical hold control for the Model 810 does not require loss of vertical sync when the control is rotated to both ends. The receiver should lose vertical sync when the control is turned to maximum clockwise position. It may or may not be possible to pull the vertical multivibrator out of sync on the maximum counterclockwise end of rotation.

ER-S-801 — MODEL 801, R-F ALIGNMENT,
ER-S-802 — MODEL 802, R-F ALIGNMENT,
ER-S-803 — MODEL 803, R-F ALIGNMENT,
ER-S-901 — MODELS 901/910, R-F ALIGNMENT.

No mention was made in the Alignment Chart, of the service notes listed, about the effect of the local oscillator on the r-f alignment curve. Unless the oscillator is set at approximately its correct frequency for the channel being aligned, it is liable to cause a serious dip in the alignment curve. Also, to minimize the effect of the first video i-f transformer, the primary should be shunted with a 200- to 300-ohm resistor.

ER-S-801 — PAGE 8, CORRECTION.

Under r-f alignment, change 1500 kc with tone modulation in Step 1 under "Signal Generator Frequency" to 1620 kc with tone modulation.

TUBE SOCKET, MODEL 810.

The tube socket for V2-A (converter and oscillator) is made of mica suspended in hard rubber. When applying heat to the terminals of this tube socket, care should be taken not to melt the terminal loose from the socket. When it is necessary to solder to the terminals of this socket, it is suggested to insert a tube into the socket such that the tube pin conducts away some of the heat. Also, apply the heat only for a short period of time with a good soldering iron.

On late production of the Model 810, the vertical size potentiometer and R106 were interposed to protect the rectifier circuit against damage due to shorts in the vertical size control. The red wire from the vertical size control to the junction of C62 and L20 should be connected from the same side of the vertical size control to C33. The end of R106 connected to C33 should be removed and connected to the junction of C62 and L20.

ER-S-810 — PAGE 9, MODEL 810.

Chart (2), Video I-F Alignment.

Steps 1 through 6 should be changed as follows: The point "connect oscilloscope to chassis and" should be changed from "L22 and R24 through 10,000 ohm resistor" to junction of "L16 and C27 through 10,000 ohm resistor". Under the "Remarks" column, Video I-F Alignment, Steps 1 through 6, change "contrast control set at mid-position" to "contrast control set at -4 volts bias measured at junction of R6, R8 and C14".

The sweep generator output should be adjusted to give .75 volts peak-to-peak or .27 volts rms, as measured on a vacuum tube voltmeter between the junction of L16 and C27 and chassis with a -4 volts bias at the R6, R8, and C14.

The new connection of the oscilloscope will ensure that the video i-f curve always returns to the base line and will facilitate the measurement of the 26.3 mc marker at the 50% point. The -4 volt contrast control setting adjusts the gain for average signal reception and is the optimum point for aligning the receiver.

When making i-f alignment, the 26.3 mc marker should be 50% or slightly lower than 50% for maximum detail. The 26.3 mc marker should never be more than 50% of the distance from the base line to the flat portion of the curve.