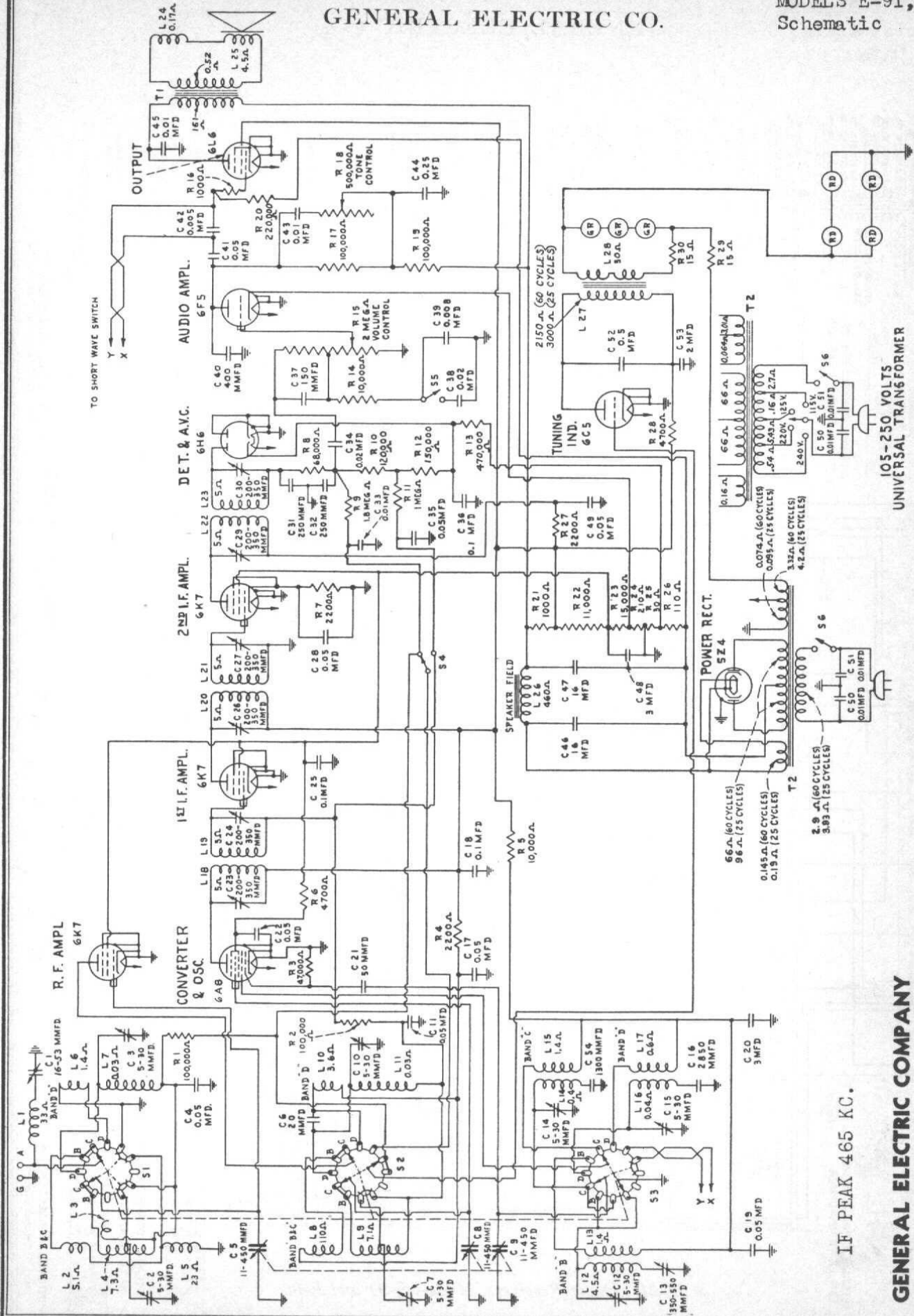


GENERAL ELECTRIC CO.

MODELS E-91, E-95
Schematic



COLORAMA TUNING LIGHTS
6.3V - 150A.

105-250 VOLTS
UNIVERSAL TRANSFORMER

Fig. 1. Schematic Circuit Diagram

IF PEAK 465 KC.

GENERAL ELECTRIC COMPANY

Radio Receivers, Models E-91 and E-95 RBS-91

MODELS E-91, E-95
Chassis Wiring
Coil Data

GENERAL ELECTRIC CO.

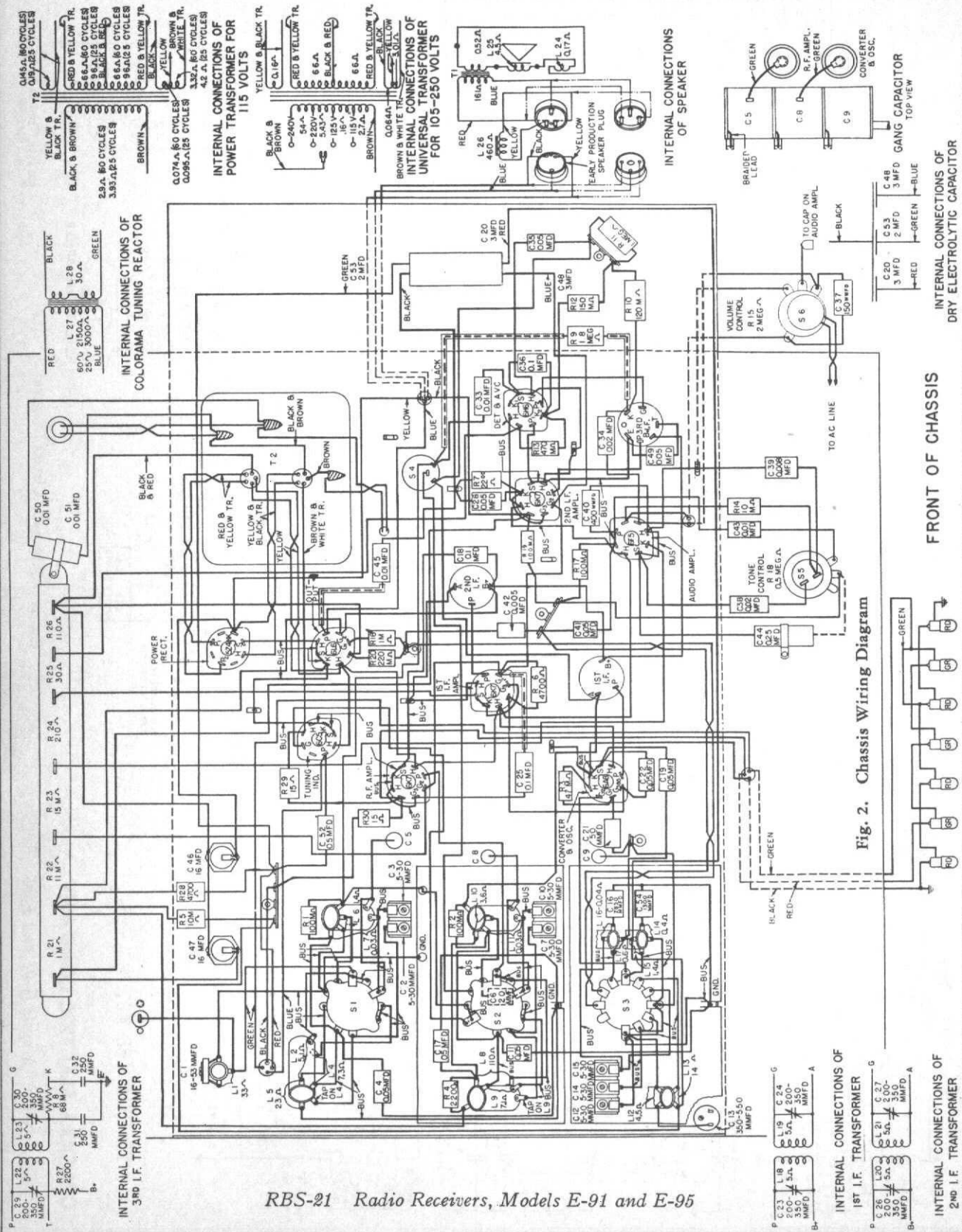


Fig. 2. Chassis Wiring Diagram

RBS-21 Radio Receivers, Models E-91 and E-95

GENERAL ELECTRIC CO.

MODELS E-91, E-95
Circuit Data
Voltage, Alignment

ALL-WAVE RECEIVERS
SUPERHETERODYNE
MODELS E-91 AND E-95

SERVICE DATA

Physical Specifications

Table with columns: Model, Width, Depth, Weight packed, Power Supply (V/Ohms), Frequency (Cycles), Power (Watts)

Electrical Specifications

Table with columns: Rating, Filter, Tuning, Tapping, Control, Output, Load, Power, Sensitivity, Selectivity, Frequency Range, Tuning Control Drive Ratio, Fast Tuning, Electrical Power Output, Load-speaker-Electrodynamie, Cover, Case, Control Impedance, Tubes

NOTE—Taps on universal transformers (Rating "(V) as shown) may be removed by the only cover on the top of the transformer.

Tuning Frequency Range

Table with columns: Band 'D', Band 'C', Band 'B', Band 'A'

Tuning Control Drive Ratio

Table with columns: Fast Tuning, Electrical Power Output

Load-speaker-Electrodynamie

Table with columns: Cover, Case, Control Impedance, Tubes

DESIGNATION OF ELECTRICAL CIRCUIT

Models E-91 and E-95 employ nine metal envelope tubes in a superheterodyne circuit, giving the excellent sensitivity

wire as possible consistent with obtaining an easily readable indication on the output meter. Adjust the frequency until a maximum deflection on the output meter is obtained...

ALIGNMENT PROCEDURE

The receiver should first be allowed to run for five minutes in order to reach its approximate normal operating temperature. Before making any adjustments, it is wise to determine the corrections of the existing alignment...

COLORAMA TUNING

These receivers are equipped with Color Tuning, a novel method which induces approach to resonance by means of a colored light...

Weak stations will produce a small color change and strong stations will produce a bright color. The color change in signal strength between the weakest and the strongest station likely to be received...

Wires to allow assembly to be drawn forward. When the socket assembly has been drawn far enough out for unscrambling the bulbs turn on the power switch and replace the bulbs which do not glow...

Plug and grid voltages for all tubes are supplied by the power supply system employing a 6Z4 full-wave rectifier tube which, together with a suitable network of resistors and capacitors, supplies the required voltages and filtering action.

Table with columns: Wound, Signal, Trimmer adjustment required, Alignment Frequencies

In order to tune this receiver properly it is necessary to have available the following test equipment:

- 1. A modulated test oscillator with frequencies available at 460, 580, 1000, 3220 and 18,000 Kc.
2. An output indicator, such as a high resistance a.c. voltmeter with a maximum scale reading of 2 to 5 volts, or a neon lamp.
3. An alignment 'zoo' consisting of an insulating sheet with a grid of holes.

I. F. Alignment

Set the frequency band switch of the receiver to Band "D". Short circuit the antenna and ground terminals and tune the receiver to some point near maximum tuning condenser capacity where no signal is heard...

either full or partial voltage to the tube, thereby allowing control of the color indication in accordance with prevailing tuning conditions. A complete description of Colorama tuning is given in a later paragraph.

The main control is found in the plate circuit of the 6F5 first audio tube and consists of capacitor C-43 in series with a variable resistor R-18 across the 6F5 plate resistor R-17...

These receivers are equipped with Color Tuning, a novel method which induces approach to resonance by means of a colored light...

Weak stations will produce a small color change and strong stations will produce a bright color. The color change in signal strength between the weakest and the strongest station likely to be received...

SOCKET VOLTAGES

Table with columns: Tube No., Cathode to Ground Volts D.C., Screen Grid to Ground Volts D.C., Heater Volts A.C., Cathode Current M.A., Plate to Ground Volts D.C.

Measured at 115 volts supply. No signal lamps. Volume control maximum. Voltmeter 1000 ohms per volt; measurements made with meter resistance indicated. ** Grid bias at source—3.3 volts. * Supply voltage minus drop in load resistor. † Grid bias at source—3.3 volts.

frequency section of this nine-tube chassis utilizes a novel type of construction known as the "Junior Sentry Box". This construction permits the use of extremely short connecting leads...

The signal from the antenna is applied to the control grid of the 6K7 R. F. amplifier tube through the antenna coil, the secondary of which is tuned to the incoming signal by the rear sections of the main tuning condenser...

The combination of the signal frequency with the local oscillator frequency in the 6A8 converter tube produces the intermediate frequency of 465 kilohertz. This particular intermediate frequency is chosen to reduce image response...

These receivers are equipped with Color Tuning, a novel method which induces approach to resonance by means of a colored light...

Weak stations will produce a small color change and strong stations will produce a bright color. The color change in signal strength between the weakest and the strongest station likely to be received...

Table with columns: Wound, Signal, Trimmer adjustment required, Alignment Frequencies

Measured at 115 volts supply. No signal lamps. Volume control maximum. Voltmeter 1000 ohms per volt; measurements made with meter resistance indicated. ** Grid bias at source—3.3 volts. * Supply voltage minus drop in load resistor. † Grid bias at source—3.3 volts.

