

# Rogers - Romaco 4 Battery Eliminator

## CIRCUIT

The two volt section of the storage battery provides the filament supply of the receiver through a dropping resistor (R1 or R2). The four volt section of the storage battery operates the vibrator unit and provides an output of 90 volts. The four volt "DC" supply is fed through the control switch (S1) and the protective fuse (F) to the primary of the step-up transformer T1. A hash filter C5, C6, and T4 is provided in the positive side. A synchronous vibrator of the plug-in type simultaneously interrupts and reverses the primary and secondary connections of the step-up transformer T1. A wave-form condenser C1 is connected across the secondary side of the transformer. The pulsating D.C. high voltage output of the vibrator is fed through a second hash filter C2 and T3 to a supply filter C3, T2 and C4 which smoothes out the ripple.

As the 1.4 volt receivers employ the use of self bias, no separate biasing source is provided in the Eliminator. The Eliminator chassis (-B) is above ground by the value of the bias resistors in the receiver. For this reason, the Eliminator chassis must not be permitted to contact the receiver chassis or ground at any point as this will short out the receiver bias.

## BATTERY

A special battery of the storage type is required to operate the Eliminator. It may be of the standard six volt Radio type battery having one of the cell connecting links removed to provide the separate four and the two volt sections. Radio batteries are designed to provide long periods of service with low drain. Automobile type batteries are not suitable as they are intended to give instantaneous high current drains for short periods.

The switch is so arranged that when in the "off" position, the charger leads connect across the entire six volts of the battery. Therefore, the Wincharger or similar charging equipment of the six volt type can be connected permanently to the charger leads, White and White-black tracer.

## INSTALLATION

The Romaco unit may be installed in the back of the radio cabinet with the battery; and the switch attached to the rear edge of the cabinet, so that it may be easily reached from the front operating position. If the storage battery is placed in proximity to the Eliminator, care should be taken to prevent the various cables coming in contact with the battery acid or acid fumes.

## CONNECTIONS

It is important that the Romaco switch be used to turn the receiver on and off rather than the switch on the receiver itself. Failure to turn off the Romaco switch will result in the Eliminator continuing to run even though the receiver switch is in the "off" position. This results in shortened vibrator life and an exhausted battery.

Sockets are provided on the Eliminator for the plug-in battery cable connections. Refer to the illustration for detail.

**CAUTION: DO NOT OPERATE THE ELIMINATOR WITH ANY OF THE TUBES REMOVED FROM THE SOCKETS.**

## FILAMENT PANEL

The Romaco Model 4 Eliminator will provide a power source for either four and five tube sets or for six tube sets by a simple change in connection. A small terminal panel with a two-position connecting link is provided on the face of the Eliminator chassis and the link must be correctly positioned to provide the proper filament voltage.

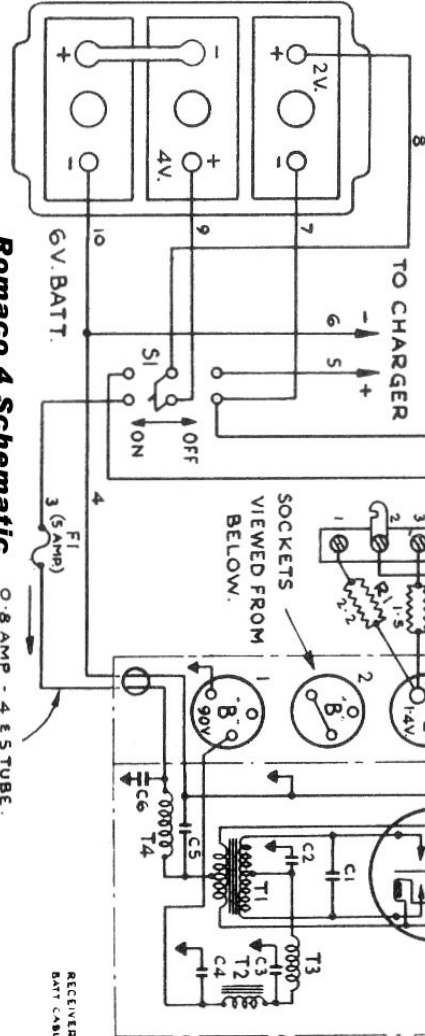
For four and five tube sets (having a filament drain of 0.25 to 0.30 amps. — 250 to 300 milliamperes)—place the connecting link between terminals 1 and 2.

For six tube sets (having a filament drain of 0.4 amps. — 400 milliamperes) — place the terminal link between terminals 2 and 3.

**DO NOT ATTEMPT TO OPERATE THIS UNIT WITH ANY RECEIVER UNTIL THE CONNECTING LINK IS IN PROPER POSITION OR DAMAGE TO THE TUBES WILL RESULT.**

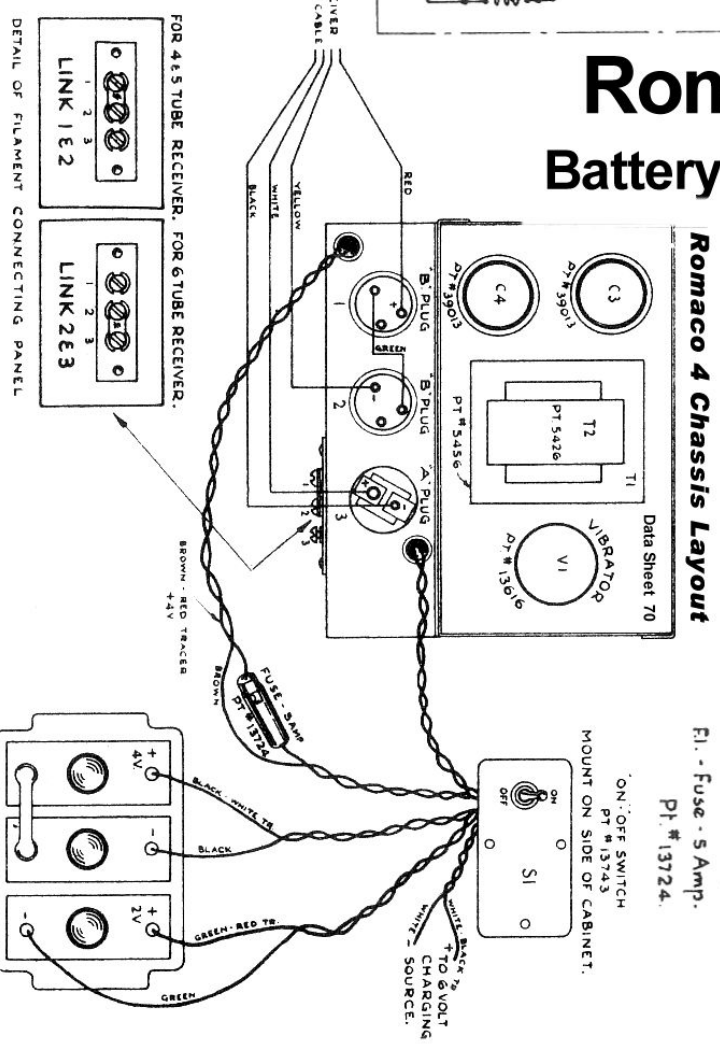
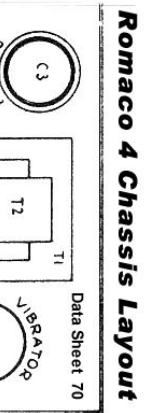
# Romaco 4 Battery Eliminator

- RESISTORS**
- R1 - 2-2 Ohms - Pt.#40569 (Special)
  - R2 - 1-5 " " 40570 ( " )
- CONDENSERS**
- C1 - 0.015 mf. - 160V. - Pt.#13532 (Tubular)
  - C2 - 0.25 mf. - 300V. " 13531 ( " )
  - C3 - 30. mf. - 350V. " 39013 (Electro)
  - C4 - 30. mf. - 350V. " 39013 ( " )
  - C5 - 0.75 mf. - 50V. " 13530 (Tubular)
  - C6 - 1000 mf. - 750V. " 34125 (Mica)



- WIRE CODING -**
- 1 GREEN & RED TR. } TWISTED. PT.#40917. 0.8 AMP - 4 E5 TUBE.
  - 2 GREEN } TWISTED. PT.#40917. 1-1 " - 6 TUBE.
  - 3 BROWN & RED TR. } TWISTED. PT.#40919.
  - 4 BROWN. } TWISTED. PT.#40921.
  - 5 WHITE & BL. TR. } TWISTED. PT.#40920. 30" LONG
  - 6 WHITE
  - 7 GREEN } TWISTED. PT.#40917.
  - 8 GREEN & RED TR. } TWISTED. PT.#40917.
  - 9 BLACK & WH. TR. } TWISTED. PT.#40921.
  - 10 BLACK.

- 0.25 AMP - 4 TUBE
- 0.30 " - 5 "
- 0.40 " - 6 "



A small fuse is provided in the positive (+) 4 volt "Brown-Red tracer" lead from the switch to the Eliminator. If the Eliminator does not function with the switch in the "on" position, check this fuse, and if found defective, replace only with the type and size originally supplied, Part No. 13724, rating 5 amperes.