

### Model SFO Regenerator

The Model SFO Regenerator is a device for the correction of mark-space distortion in teleprinter signals, one of the most serious difficulties encountered in long distance teletype transmissions over land lines or radio links. This distortion introduces a bias of the pulse being fed into the receiving printer. The SFO compensates for this condition.

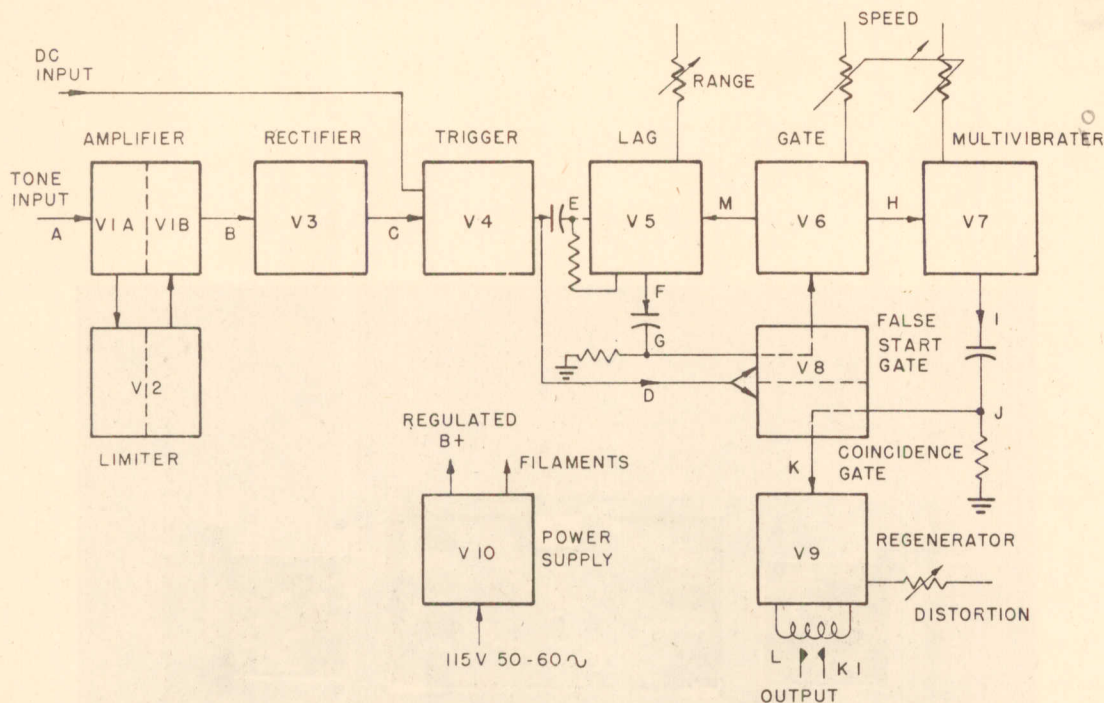
#### General Description:

The Model SFO Regenerator will accept teleprinter signals in either audio (on/off) form or in direct current form (polar or neutral).

The regeneration of these signals is accomplished by electronic means. Sampling pulses are generated in the unit to synchronize with the center of each teleprinter pulse. When the sampling pulse coincides with a mark, the pulse operates a relay circuit to produce a regenerated mark at the output; if the sampling pulse coincides with a space, a space pulse of proper duration is produced at the output.

Two of the SFO regenerators may be used to receive a Duplex teleprinter signal when one regenerator is set to produce the leading duplex signal and the other set to produce the lagging duplex signal. In each case the signal output coincides with standard simplex timing.

The Model SFO will directly drive a teleprinter when used in series with local battery.



**TECHNICAL SPECIFICATIONS** — Joint Army and Navy (JAN)

**Input:** 60, 75 or 100 WPM teleprinter signals.

**Input Keying:** Tone 500 to 3600 CPS, —20DB to ODB into 600 ohms 30 ma polar or 60 ma neutral DC. (DC Positive or negative to ground.)

**Output:** Hermetically sealed Western Electric mercury contact relay, contacts in series with 310 ohm resistor, contacts closed on mark during operation or during any steady input state. Polar output can be provided if required.

**Acceptable input distortion:** up to 45% mark or space bias

**Output distortion:** less than 5%

**Power requirements** 85 watts, 110/220 volts, 50/60 cycles

**Tube complement:** 6 each 6SN7GT, 2 each 6H6, 1 each 6SL7GT  
1 each 5U4G, 2 each OD3/VR150, 2 each OA3/VR75

**Mounting:** Standard W.E. rack type

**Size:** 19" wide x 8¾" high x 10" deep

**Weight:** 55 lbs. net 85 lbs. gross

**Packing:** For export shipment.

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