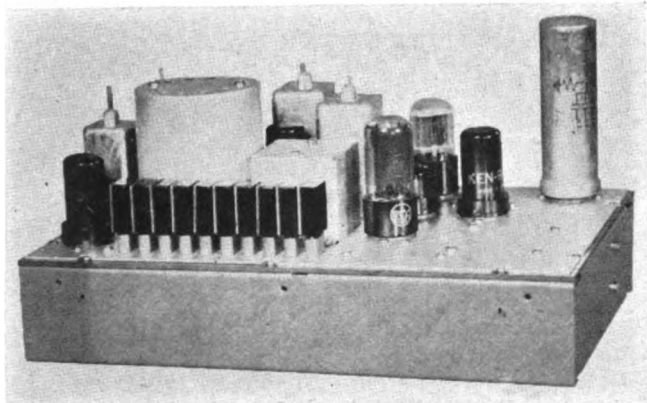


to be mounted in the ceiling of the car or sub-section of a car; a main control box and suitable local controls for each section or compartment of the car.

In designing the receiver, several major and minor problems are said to have been taken into consideration. For example, a train traveling for long distances will at



The 58A railway receiver

many times pass localities possessing an extremely high noise level due to power installations, factories and the like. Extreme vibration is encountered. The fact that the train is in motion for long periods of time means that distances from transmitting stations are constantly changing with accompanying change in receiving conditions. This imposes rather rigid qualifications on automatic

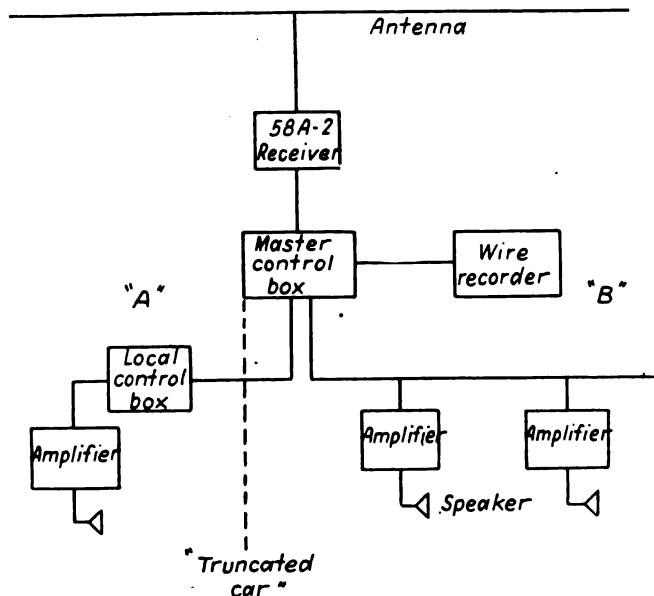


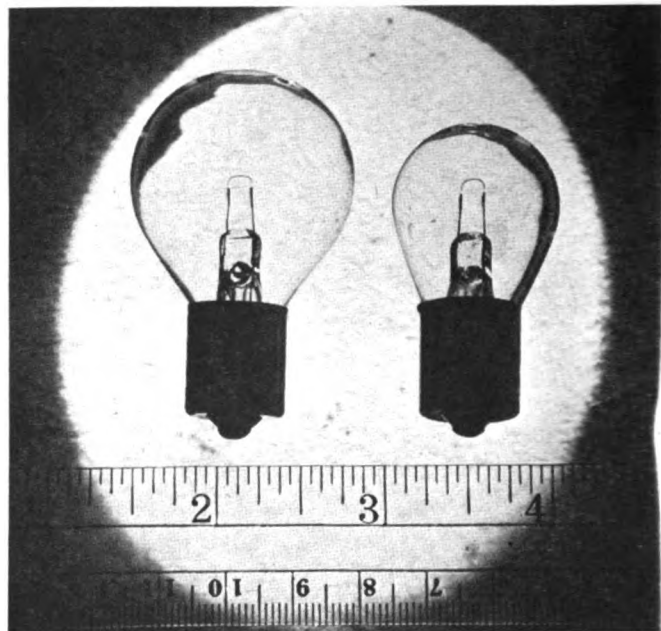
Diagram of integrated entertainment system

volume control and receiver sensitivity. Modern trains possess very little space for mounting receiving units. Therefore, all units must be able to be mounted in out-of-the-way places and remotely controlled. Because of these problems, conventional home receiver design is said to have been discarded and design begun from scratch in designing the new railway broadcast receiver.

Further information on the foregoing new devices may be had by writing to the manufacturers. In doing so, please mention *Railway Signaling*.

Smaller Signal Lamps

A REDUCTION in the bulb size of railway signal lamps now listed with the S-11 bulb to the S-8 bulb will be made by the Westinghouse Lamp Division of the Westinghouse Electric Corporation, Bloomfield, N. J., as soon as manufacturing facilities permit. This change will not, however, apply to railway *light* signal lamps. The efficiency, life, light-center length, filament construction, axial-alinement tolerances and price will be unaffected, according to the manufacturer. The diameter and length will be reduced $\frac{3}{8}$ in. The smaller bulb will facilitate relamping, minimize breakage, save storage and trans-



Lamps in S-11 bulb (left) and S-8 bulb (right)

portation space, make possible smaller auxiliaries and provide an easy means for distinguishing it from the railway *light* signal lamp. According to the manufacturer, this change was decided upon after a poll of A.A.R. Signal Section members showed there were no objections to the proposal.

Polyvolttester

THE Fox Valley Instrument Company, Box 603, Ingle-side, Ill., has announced a small pocket-size device, called a polyvolttester, for determining a member of electrical circuit conditions. The meter is said to be capable of showing when a circuit is live or dead; distinguishing between 220 or 110 volts; determining whether a circuit is a.c. or d.c.; and distinguishing between directions of phase rotation. It will also identify the positive and negative wires on d.c. circuits, and can be used on voltages up to 440. The tester incorporates two small neon lamps and resistors, so arranged that the instrument will not indicate when connected between a live circuit and the capacitance of a dead wire.

When the two outside leads of the tester are connected across a 440 or 220-volt single-phase a.c. circuit, both lamps will glow, and if across 110 volts neither lamp will glow. If the center lead and one outside lead is placed across 110 volts, one lamp will glow. To determine phase