

Instructions for

RCA Victor Shield Kit

Model SK-7

INTRODUCTION

The RCA Victor Shield Kit SK-7 makes possible more quiet reception with radio receivers situated in close proximity to a source of electrical noise interference. Such interference may be produced by electrical power plant machinery and associated distribution systems or, more commonly, by any of a variety of electrical devices or appliances of which street railways, oil burners and vacuum cleaners are known offenders. It is ordinarily "picked up" on the antenna lead-in wire or at the set itself and when amplified may destroy the quality of or entirely eradicate desirable radio programs.

With this system, both the lead-in wire and the radio chassis are fully shielded against such "pick up." The quality

of incoming signals, therefore, can be affected only by natural atmospheric disturbances (commonly known as static) and by man-made interference picked up directly on the antenna. To insure greatest freedom from the latter effect, it is important that the antenna shall be installed as far as possible from any local electrical apparatus (in the above general category) and at a right angle to the nearest electric railway or power distribution line. The shield cover, which encloses the entire top part of the receiver unit, is arranged for ready adaptation to any of the following RCA Victor console radio receivers: models R-78, R-77, R-76, R-21 and R-11; also combination model RE-81.

INSTALLATION

A typical antenna installation equipped with the shield kit is shown in Figure 1. The kit, as furnished, consists of two transformers, a radio chassis shield cover, and a short flexible shielded conductor. One of the transformers (with three leads attached), together with a suitable lightning arrester, should be mounted on the antenna mast adjacent to the lead-in. The second transformer should be mounted in the receiver cabinet near the radio chassis. The connections between the two transformers should be made with weather-proof low-capacity shielded cable. Best results will be obtained using RCA Victor Cabloy "RF-5050" (see inset, Fig. 1). This cable has been developed especially for such applications and may be obtained in the length required from your dealer. Its heavy external lead sheath is suitable for fastening support and ground clamps where required. For best performance, the shield covering of this cable should be grounded at the antenna end in addition to the customary water pipe or radiator connection inside the dwelling. Excellent auxiliary grounding facilities will be found available in many installations through the adaptation of an existing large-area conducting medium such as a metallic roof or fire escape.

Electrical connections to the internal terminals of the transformer at the receiver are made upon removal of the main case section from its mounting plate and are clearly illustrated by the detailed internal view at the upper right in Figure 1. The end of the Cabloy lead sheath must be secured beneath the support clamp, and the internal copper strip must be soldered to the ground terminal, both of which will be found attached to the inner surface of the mounting plate. After making all connections reassemble the main case section of the transformer upon its mounting plate, making certain that the Cabloy and the short flexible shielded conductor are brought through the slots provided.

Then fasten the transformer (by means of wood screws) to the inside of the cabinet in the most convenient location.

The existing antenna and ground leads (black and yellow, respectively) extending from the receiver unit must be removed from the terminals by which they are secured to the antenna coil (mounted vertically on radio chassis near front). Then solder the free end of the shielded conductor to these terminals—the internal insulated wire to the antenna terminal and the external metallic braid covering to the ground terminal.

Important—The ground terminal of the antenna coil in all cases must be connected to the chassis. In models R-76, R-77, R-78 and RE-81, this connection has been made at the factory and upon examination should be found intact. In models R-11 and R-21, make this connection by soldering a wire from the ground terminal of the coil to the coil bracket as shown in Figure 1.

Mounting of the shield cover can be effected only by removal of the radio chassis from its metallic supporting brackets. The control knobs and the two wood screws at the rear of each supporting bracket must first be removed in order to disengage the radio chassis. Clamp the shield cover to the chassis by means of the small bolts which attach the lower metallic cover to the chassis base. The shield also must be electrically grounded to the chassis metal by a wire connection as shown in Figure 1 (inset at lower right).

NOTE—All receivers listed in the introductory section, except model R-78, are of the single unit type and afford sufficient space at the bottom of the cabinet for resting the chassis while adding the shield cover. In

model R-78 the radio receiver chassis (upper unit) must be entirely removed from the cabinet. This is accomplished by disconnecting the radio chassis cable from the small terminal board located at the rear right corner of the amplifier (lower unit). The metallic protective cover enclosing the terminal board may be removed by loosening the single clamping screw.

Ventilation openings are provided in the top surface and in the rear apron of the shield cover. More rapid dissipation of heat, however, is necessary in models R-76, R-77 and RE-81 in which the new mercury-vapor rectifier (Radiotron RCA-82) will be enclosed by the shield cover. To provide for this, the cylindrical tube shield enclosing the rectifier must be removed.

In mounting the shield cover, make certain that the antenna shielded cable and the external grid lead or leads enter the assembly through the slots provided at the bottom of the rear apron. Replace the metal supporting brackets on the chassis side flanges and mount the assembly in its proper position in the cabinet. Then re-insert the wood screws used to secure the supporting brackets and attach the knobs to the control shafts.

NOTE—Subsequent replacement of Radiotrons may be made simply by removal of the rear portion of the cover which is attached to the main section by means of three screws at each side.

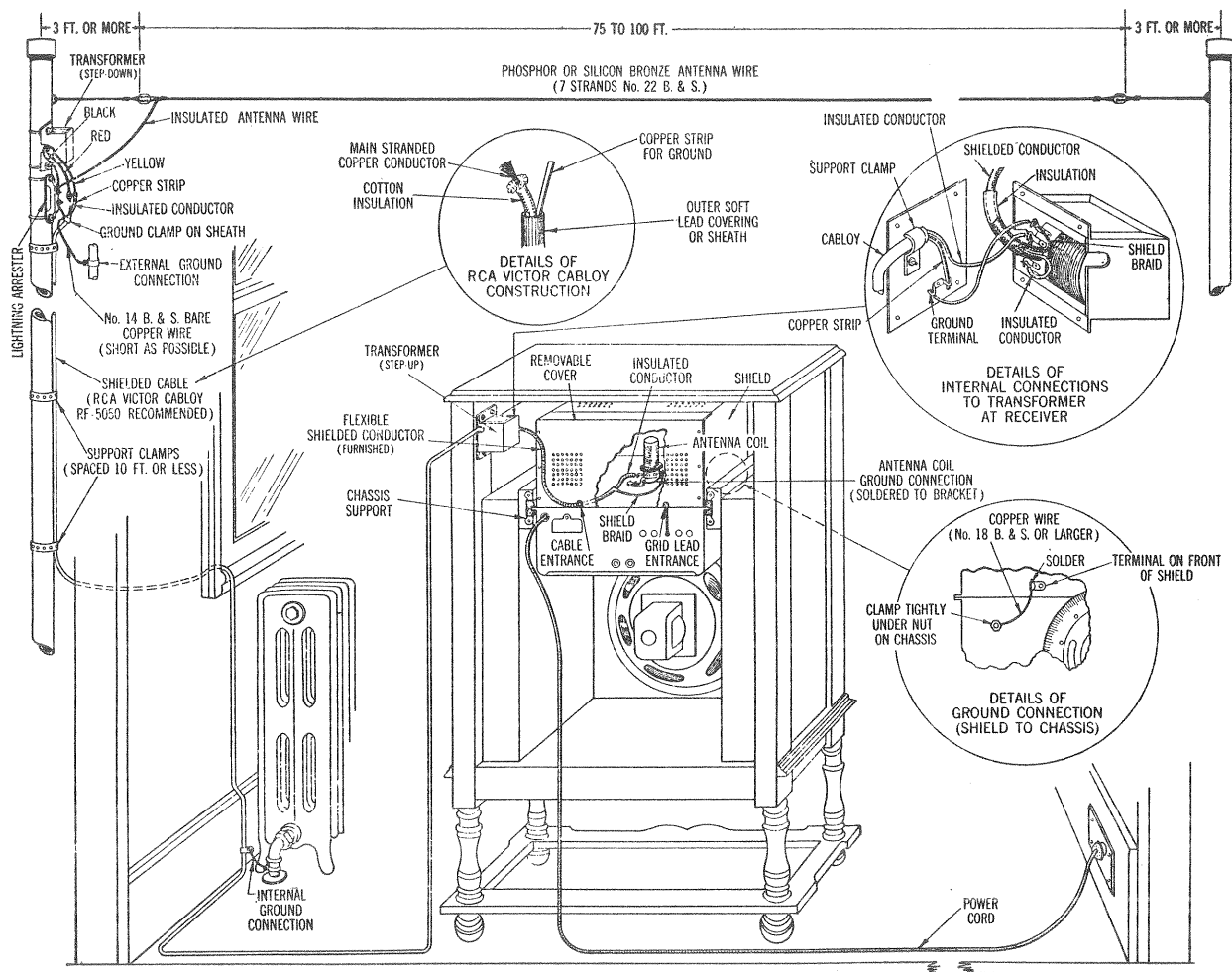


Figure 1—Typical Shield Kit Installation

REPLACEMENT PARTS

Stock No.	DESCRIPTION	List Price
SHIELDED ANTENNA EQUIPMENT		
7575	Transformer—Antenna coupling transformer	\$1.64
7576	Transformer—Receiver coupling transformer	2.40
8975	Shield—Receiver, chassis shield	4.80

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