

Antenna Rotator Remote Control

For TV, CB and Hams

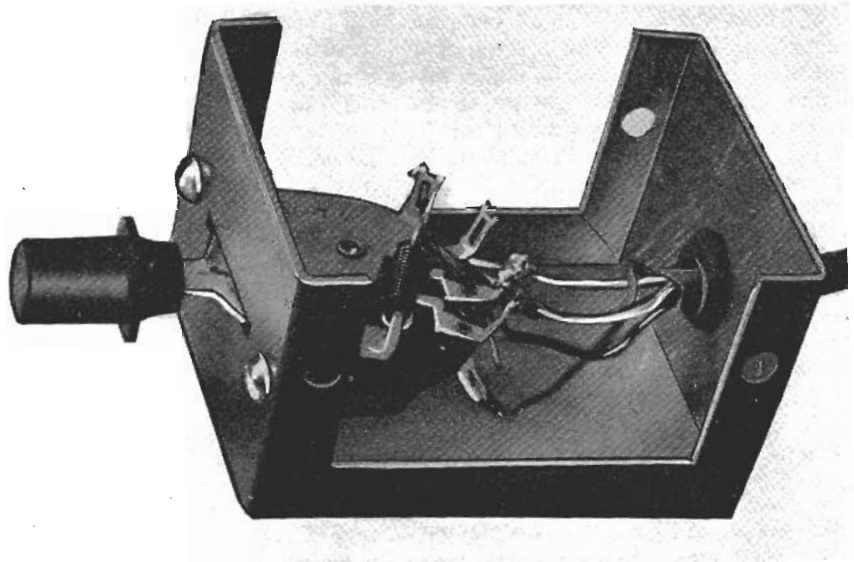
Simple lever-switch attachment gets direction-indicator and control-box off your operating desk. By R. P. BINTLIFF

FOR CONVENIENCE OF OPERATION IN A ham or CB station, the receiver, vfo, key, microphone and various control or accessory items are usually located within easy reach of the operator. The result is often an overcrowded operating table, with unoccupied space at a premium. My shack is no exception, but this modification of an antenna rotator control box has provided some relief.

The rotator in this case is an Alliance T-12, but the remote switching can be used with other rotators of similar design. The "stock" version is operated by a bar switch on the indicator control box close by.

The remote-control unit shown in the photos permits relocating the indicator box to where you can see it without having it in the way. It consists of a two-pole three-position momentary-contact lever switch mounted in a $2\frac{1}{8} \times 2\frac{3}{4} \times 1\frac{1}{8}$ -inch Mini-box. Instead of a Mini-box mounting, the switch can be installed on an existing control panel or at some other location, as you like.

A brief look at a simplified rotator schematic (Fig. 1) may be helpful.



It's only a switch in a box, and a 5-wire cable.

The rotator's reversible motor is operated by a dpdt center-off, spring-return switch (S1). The switch contacts are arranged so that S1-a first closes the

24-volt circuit and then S1-b applies primary power to the stepdown transformer. A remote-control unit must duplicate that switching sequence. The dashed lines show the added wiring connected to a Jones socket.

Lever switches are best suited for S2 in this application, since their switching sequence can be controlled. I tried bending the contacts of leaf-type lever switches, but switching was not completely reliable. So I used a wafer type of lever switch instead. The switch must be a momentary-contact one, because a positive-action switch can accidentally be left in either of the two energized positions. Continuing to apply power after the rotator's mechanical stop is reached may overheat the transformer and damage the rotator.

A Centralab PA7002 switch was selected because it is compact, has a positive spring action and is easy to modify. To alter the rotary contact of S1-b (for the switching sequence), straighten the bent-over tabs that fasten it to the wafer and carefully remove it. This shorting type contact must be filed down as shown in Fig. 2. An ignition or model-maker's file is useful here.

