

the p-a "phone jack" on the rear recess. The relay contacts should be connected between the phono jack and chassis ground via reasonably short, heavy leads, or otherwise full muting will not be obtained.

MCW OPERATION

"MCW" operation (keyed tone with constant carrier) may be accomplished very easily by simply running a wire from the p-a connector (phono jack) on the rear of the transmitter chassis back via a telegraph key to the hot microphone terminal on a PL-68. A 1200 ohm 1/2 watt resistor should be connected from the hot microphone terminal to ground (shell) of this PL-68. The tone may be varied as desired by adjustment of the a-f gain control on the rear of the transmitter, and by throwing the mike switch between "crystal" and "carbon".

USING COMMUNICATIONS RECEIVER AS I-F STRIP

For home station use it is possible to use any good communications receiver having (or adjustable to) an I-F bandwidth of not less than about 10 kc. following the I-F strip in the COMMUNICATOR, thus in effect making a composite "double conversion" superheterodyne having much greater selectivity than the COMMUNICATOR receiver alone.

This is accomplished by running a piece of coax to the input of the communications receiver from a 1 uufd. (approximately) condenser or "gimmick" connected to the plate of the last I-F tube in the COMMUNICATOR. The communications receiver is tuned precisely to the center of frequency of the COMMUNICATOR I-F pass band. (Refer to individual schematic for IF.) The trimmers on the last I-F transformer in the COMMUNICATOR should be touched up after making this installation, as connection of the "gimmick" condenser will affect the tuning slightly.

PUSH-TO-TALK RELAYS

The relays employed in the push-to-talk models ordinarily will be trouble free for several years of normal use, without need for adjustment. However, when the equipment is exposed to wind blown dust, sand, etc., difficulty may be encountered with foreign matter lodging between contacts or between the pole piece and armature.

Such foreign matter often can be blown out with compressed air. If it has caused contact arcing, the contacts should be burnished with a tool similar to Western Electric (Graybar) relay burnishing tool no. W.E.265-C. Care should be taken during this process not to upset the reed or blade tension on any of the contacts. Do not use liquid contact cleaners.

MISCELLANEOUS NOTES

When removing the receiver from the main cabinet for any reason, it is extremely important that the dressing of the high frequency R-F leads not be disturbed, as some are quite critical.

On the tune-up positions of the tuning eye switch, screen voltage is removed from the 2E26 P-A tube. However, a few milliwatts of power will be radiated under these conditions, which is sufficient to be heard several blocks, if the set is hooked to an antenna. Therefore, tune-up should be accomplished as quickly as possible or else a dummy antenna used if this amount of radiation is likely to bother a net, such as CAP.

Trouble sometimes is encountered in getting positive contact in the microphone jack when a worn PL-68 plug is employed. The jack spring contacts are adjusted for use with a new plug, and if trouble is encountered when using a worn plug it is suggested that a new plug be substituted rather than tamper with the spring adjustment.