

Modification of B & W TR Switch.
Model 381

The earlier B&W 381 (not the B model) is basically the same except the band switch is on the opposite end of the cabinet. The variable capacitor should be mounted as shown in Fig. 3 (On the opposite end panel from the coax connectors). The wiring of the 381 requires two other changes to make it agree with the 381B schematic. The lead from the common end of the band switch coils to B plus must be disconnected at the B plus end and reconnected to pin 9 of the 6S4A. The lead from the center arm of the band switch to pin 9 of the 6S4A must be disconnected from pin 9 and connected to B plus.

Those who already have the 381B model will find that the modification is really quite simple, as shown by the following procedure (Similar mod's could be applied to other unit's).

-----Procedure.-----

- (1) Remove the chassis from the cover by taking off the front panel, and drill a hole in the panel to accommodate the variable capacitor (C3) to be installed. This hole should be the same distance from side and bottom of the panel as the band switch hole.
- (2) Mount the capacitor on the panel with the stator plates TOWARD THE BOTTOM.
- (3) Reinstall the panel on the chassis and make sure the moveable plates when rotated do not touch Z3 and Z4 (AC line filter coils) stator
- (4) Solder a heavy bus bar from the ~~XXXX~~ connection on C3 to the "half moon" ring on the terminal strip as shown in Fig. 3
- (5) Run a heavy bus bar from the rotor connection of C3 to the ground lug next to the capacitor. Be sure not to short any AC components.
- (6) Remove all mica capacitors connected across the coils on the band switch.

- (7) Connect C1 (56pf.Mica) across the 80 meter coil, and connect C2 (43 pf mica) across the 40 meter coil. Leave the 20 through 10 meter without capacitors.
- (8) Remove the mounting nut on the tuning capacitor just installed and dismount the panel from the chassis. With the capacitor supported by its leads, slide the unit into the cabinet and reinstall the front panel.

The TR switch should be placed near the rear of the transmitter and connected as usual. When changing bands, select the proper band with the band switch and tune for maximum gain in the receiver with C3.

Tune the transmitter normally.

A few simple operations can add to the appearance for those who are interested. The printing under the tuning capacitor knob can be removed by the judicious use of a rubber ink eraser ~~xxx~~ using care to prevent removing gray paint. Standard decals can then be placed in the correct position. These changes should be made before the panel is mounted.

----- Advantages -----

No Noise

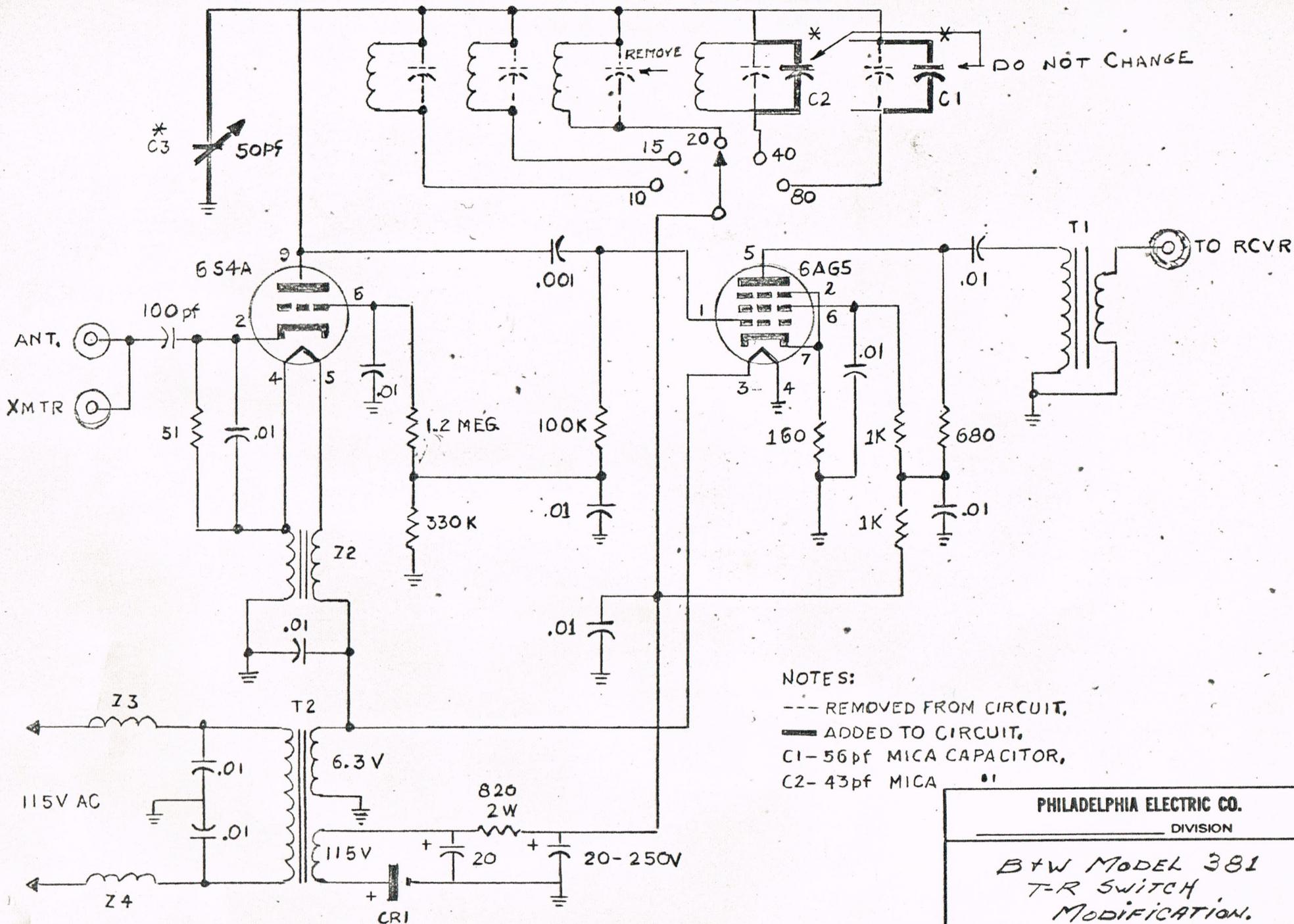
Instant "break in".

Constant antenna load

----- Disadvantages -----

High cost of TR switch.

Extra knob to adjust when operating.



NOTES:
 --- REMOVED FROM CIRCUIT,
 ——— ADDED TO CIRCUIT,
 C1- 56pf MICA CAPACITOR,
 C2- 43pf MICA

PHILADELPHIA ELECTRIC CO.		
DIVISION		
<i>B+W MODEL 381 T-R SWITCH MODIFICATION.</i>		
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