

**TYPE ON/K CARRIER — REPEATERED HIGH-FREQUENCY LINE  
AMPLIFIER SWITCHING — METHOD OF SWITCHING ON/K AMPLIFIER**

At times it will be necessary to change a tube in an ON/K amplifier or to replace an amplifier unit. This can be done by switching the amplifier without interrupting service.

E-W controls are used exclusively on the 2M switching test set. The direction of transmission which is routed through the set is determined by the use of the ED-92717-G7 adapter. With the adapter inserted between the P9C cord and the switching jack, the W-E direction in first terminal or junction is connected to the switching set. If the adapter is omitted, the E-W direction or second terminal or junction is connected.

The purpose of this test is to switch an ON/K amplifier using a 2M repeater switching set.

**APPARATUS:**

- 1 — 2M Repeater Switching Set (J94002M)
- 1 — ON/K Switching Set Adapter (J98709E)
- 1 — W8D Cord (used with 2M set)
- 1 — ED-92717-30-G3 Adapter
- 1 — ED-92717-30-G7 Adapter
- 1 — ED-92717-30-G8 Adapter
- 1 — 31B Transmission Measuring Set
- 1 — P9C Cord

STEP	PROCEDURE
1	Plug ON/K switching set adapter (J98709E) into 2M switching set and plug J2 of adapter into BAT jack of switching set.
2	Plug spare repeater amplifier of proper type into adapter. If it is a transmitting amplifier, resistor R11 should be connected in place of thermistor RT1 providing fixed gain.
3	Connect W8D cord to P1 on adapter to nearest switching set power supply jack wired for ON/K amplifier.
4	Set E-W switching key in REG position and E-W GAIN to minimum position.
5	Remove repeater connector in J7 or J8. J7 is for receiving and J8 for transmitting amplifiers.
6	If amplifier being switched is in J1 or J4 of amplifier mounting, plug ED-92717-30 G7 adapter into J7 or J8 as required.

STEP	PROCEDURE
7	Connect P9C cord between G7 adapter or switching jack J7 or J8 and REG REPT jack of 2M switching set.
8	Plug ED-92717-30 G3 adapter into TEST jack of switching set.
9	Plug ED-92717-30 G8 adapter into G3 adapter and connect 3W7A cord of 31B TMS to J1 or J4 OUT pins of group 8 adapter.
10	Set TST selector to E-W REG and measure output of regular repeater with 31B TMS.
11	Remove other repeater connector associated with amplifier being tested. Output as measured on 31B TMS should not change appreciably from that measured in Step 10.
12	Set TST selector to E-W ALT and adjust E-W gain to give same value of output.
13	Quickly operate E-W key to ALT position. System is now operating through spare amplifier, and regular amplifier may be removed or worked on.
14	After work is completed and regular amplifier is restored to operating condition, set TST selector to E-W REG and measure output. If it is satisfactory, quickly operate E-W key to REG.
15	Replace repeater connector in unused switching jack.
16	Remove P9C cord and adapter (if used) from other switching jack and replace 2nd repeater connector.
17	Disconnect W8D cord from power supply jack.