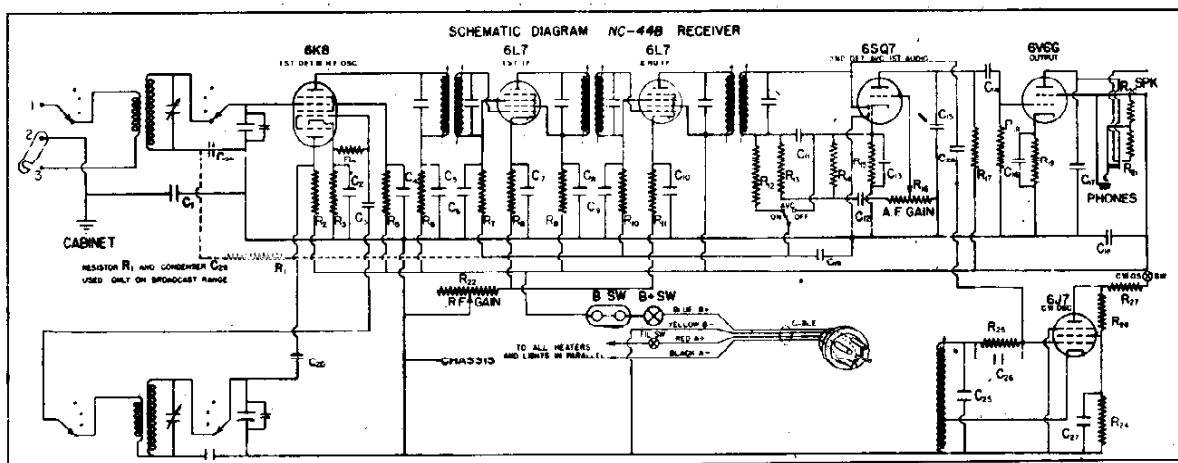
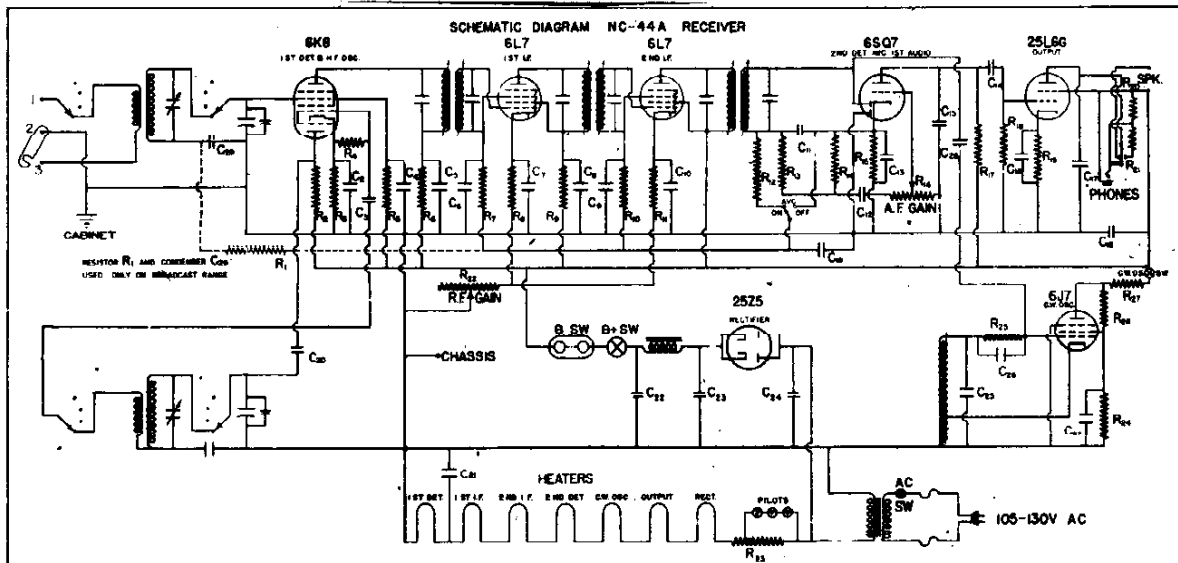
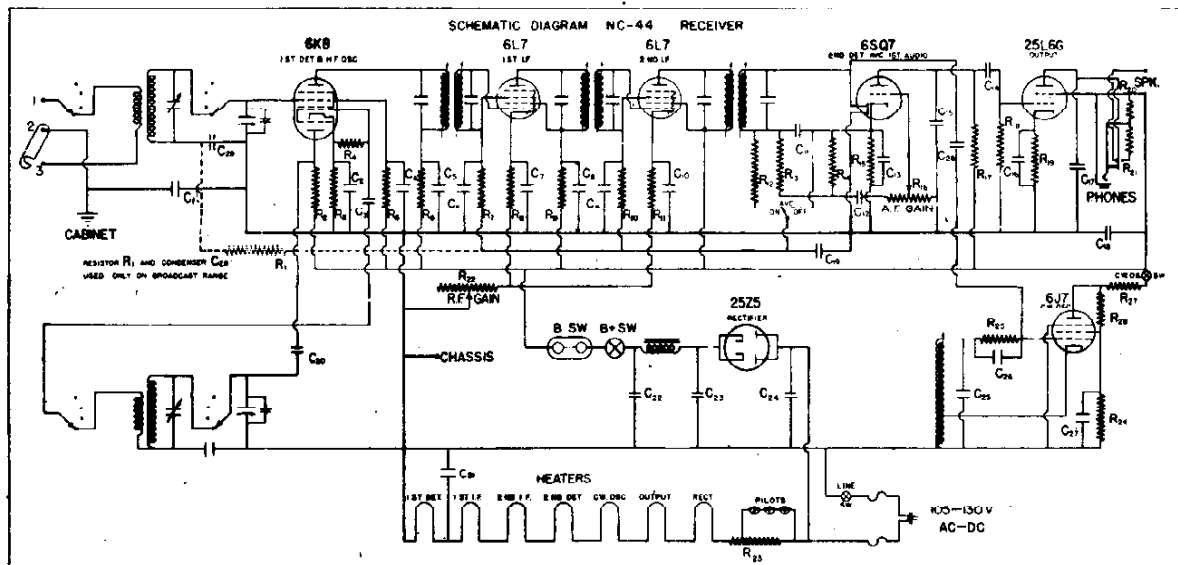


NATIONAL CO., INC.

MODEL NC-44
MODEL NC-44A
MODEL NC-44B



IF PEAK 456 KC

MODEL NC-44
MODEL NC-44A
MODEL NC-44B

NATIONAL CO., INC.

THE NC-44B RECEIVER Battery Model

The NC-44B (Battery Operated) is basically the same as the NC-44 (AC-DC) model, the power supply being omitted. In general, the data given applies to the NC-44B. Data applicable to the NC-44B only is as follows:
The tube complement is the same as the NC-44 except that a type 6V60 tube is used in the audio output stage; the rectifier tube is omitted. The heater circuit requires 2.25 amps. at 6 volts; a "B" supply of 90-135 volts is recommended. The "E" drain is approximately 40-65 milliamperes.

If desired, the NC-44B may be operated entirely from a 6-volt DC source in conjunction with a National Type 688 Vibrator Power Pack. On special order and at an increase in price, the receiver can be furnished with a built-in vibrator pack (Type NC-44BV).

Operation from AC lines is made possible by employing a National Type 5885AB Power Supply. Receiver power cable code and connector plug connections are shown on the circuit diagram below. Plug prong connections match the output socket wiring of the Types 686 and 5885AB Power Supplies.

As stated above, the output stage employs a 3V60 tube. The loud speaker furnished with the receiver is equipped with a coupling transformer to match the lead impedance of the output tube - 5000 ohms. Since both speaker and headphone outputs are obtained from the output tube, it is not possible to operate the receiver with this tube removed from its socket.

The main dial is illuminated by two dial lamps connected in parallel across the heater circuit. These lamps are the standard "brown bead" type, designed from 6.3 volts and drawing .15 ampere each.

CAPACITORS			RESISTORS		
mfd.	volts	mfd.	ohms	watts	ohms
C1-.1	400	C14-.1	400	1/2	R1-5 meg-
C2-.1	400	C15-.0005	400	1/2	R2-10,000
C3-.0001	400	C16-.25	50	1/2	R3-200
C4-.1	400	C17-.001	400	1/2	R4-25,000
C5-.1	400	C18-.1	400	1/2	R5-1,000
C6-.01	400	C19-.01	400	1/2	R6-1,000
C7-.1	400	C20-.005	400	1/2	R7-.5 meg-
C8-.1	400	C21-.001	400	1/2	R8-300
C9-.01	400	C22-.0001	400	1/2	R9-1,000
C10-.1	400	C23-.0001	400	1/2	R10-.5 meg-
C11-.00025	400	C24-.1	400	1/2	R11-300
C12-.01	400	C25-.000002	400	1/2	R12-1.0 meg-
C13-.25	50	C26-.01	400	1/2	R13-.5 meg-
		C27-.1	400	1/2	R14-1.0 meg-
		C28-.01	400	1/2	R15-5,000
		C29-.01	400	1/2	R16-.5 meg- Pot.
					R17-.1 meg- 1/2
					R18-.5 meg- 1/2
					R19-350 1
					R20-500 1/2
					R21-1,000 2
					R22-10,000 Rheo.
					R23-.132 10
					R24-.1 meg- 1/2
					R25-50,000 1/2
					R26-.1 meg- 1/2
					R27-.1 meg- 1/2

PROTECTIVE DEVICES: A double fuse block is mounted underneath the chassis and contains two standard fuses designated as the type 3AG, having a rating of 2 amperes. One fuse is connected in either side of the line and will provide adequate protection against damage to the various tubes and circuit elements which might result from any short-circuit or ground.

The operator who uses break-in, or who is experimenting with various types of transmitting and receiving antennae should provide some means of preventing excessive R.F. pick-up which might harm the input circuit of the receiver. In case of doubt, it is recommended that an R.F. ammeter be connected in the antenna lead-in, or in one of the doublet feeders close to the receiver, in order to measure the actual R.F. pick-up. This current should not exceed .1 ampere.

DIAL LAMPS: From the circuit diagram, it may be seen that the dial is illuminated by three lamps connected in series across a portion of the series heater resistor. These lamps are the standard "brown bead" type, designed for 6.3 volts and drawing .15 ampere. Since they necessarily form a part of the heater circuit of the receiver, burned out lamps should be replaced promptly, for, although the receiver will not be harmed, the various tubes will not function quite as efficiently if the dial lamps are not lighted.

NATIONAL NC-44 RECEIVER AC-DC Model

CAPACITORS			RESISTORS		
mfd.	volts	mfd.	ohms	watts	ohms
C1-.1	400	C15-.0005	400	1/2	R1-.5 meg-
C2-.1	400	C16-.25	50	1/2	R2-10,000
C3-.0001	400	C17-.001	400	1/2	R3-200
C4-.1	400	C18-.1	400	1/2	R4-25,000
C5-.1	400	C19-.01	400	1/2	R5-1,000
C6-.01	400	C20-.005	400	1/2	R6-1,000
C7-.1	400	C21-.1	400	1/2	R7-.5 meg-
C8-.1	400	C22-.40	200	1/2	R8-300
C9-.01	400	C23-.40	200	1/2	R9-1,000
C10-.1	400	C24-.1	400	1/2	R10-.5 meg-
C11-.00025	400	C25-.0001	400	1/2	R11-300
C12-.01	400	C26-.0001	400	1/2	R12-1.0 meg-
C13-.25	50	C27-.1	400	1/2	R13-.5 meg-
C14-.1	400	C28-.000002	400	1/2	R14-1.0 meg-
		C29-.01	400	1/2	R15-5,000
					R16-.5 meg- 1/2
					R17-.1 meg- 1/2
					R18-.5 meg- 1/2
					R19-350 1
					R20-500 1/2
					R21-1,000 2
					R22-10,000
					R23-.132 10
					R24-.1 meg- 1/2
					R25-50,000 1/2
					R26-.1 meg- 1/2
					R27-.1 meg- 1/2

THE NC-44A RECEIVER AC Model

Recommendations pertinent to the NC-44 (AC-DC) receiver apply also to the NC-44A (AC) model, except as follows:
The NC-44A is designed for operation from 105-130 volt, 50-60 cycle lines only and draws approximately 50 watts. Attempted operation from other AC sources or from DC lines will cause serious damage to the receiver.
The schematic diagram below shows the circuit of the NC-44A model.

Parts List same as NC-44, except that C1 is not used.