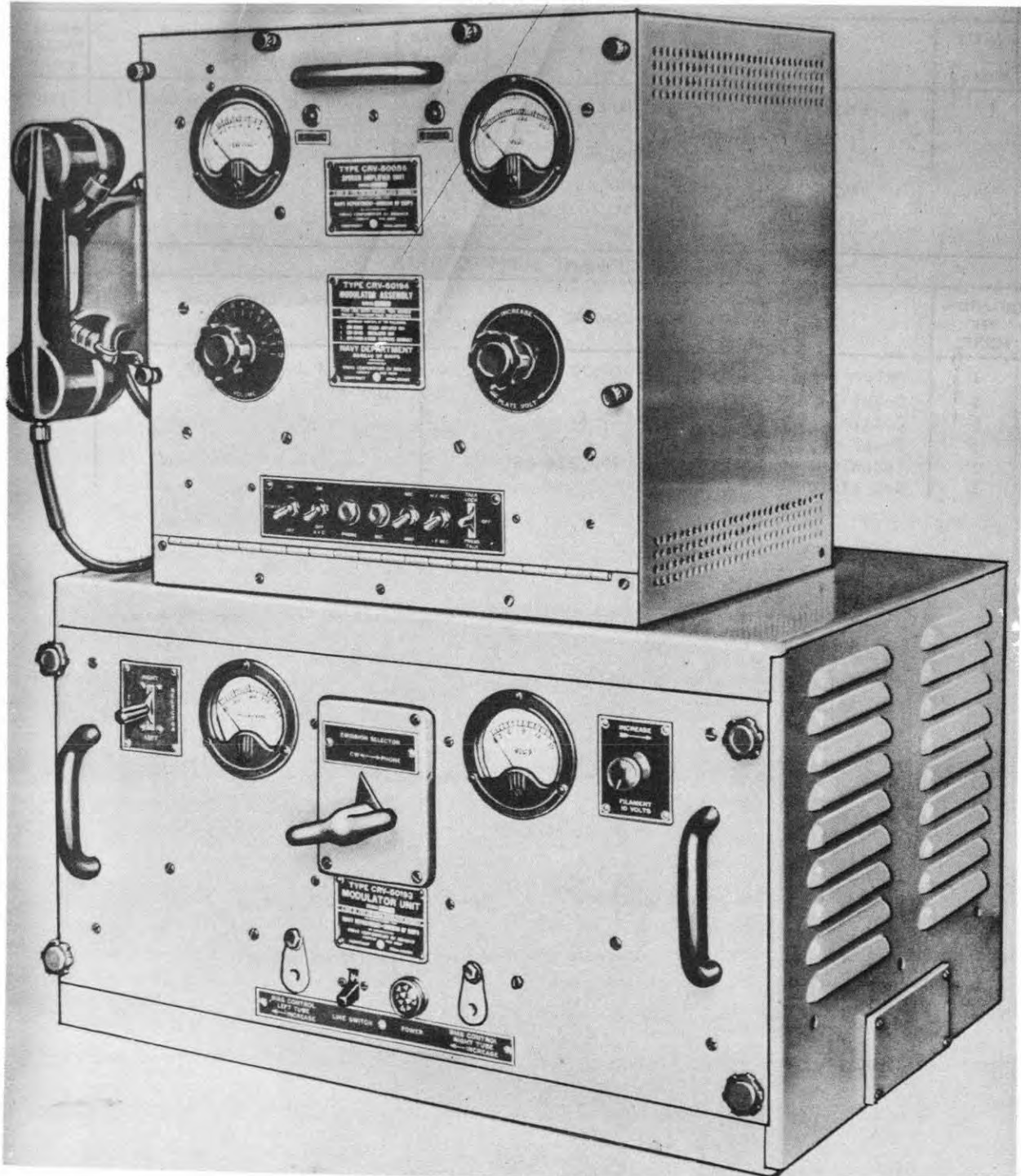


# SPEECH INPUT AND MODULATOR EQUIPMENT



*Speech Input and Modulator Equipment NT-50194*

April 1958

Radio-Auxiliary

50194

## SPEECH INPUT AND MODULATOR EQUIPMENT

### FUNCTIONAL DESCRIPTION

The NT-50194 Modulator Assembly is used for voice-modulating the TBK Series Radio Transmitting Equipment. The amplifier provides two stages of impedance coupled, class A amplification between the microphone of the handset and the input circuit of modulator unit. The unit may be operated as a straight amplifier or with automatic gain control. In addition to supplying amplified audio power to the modulator unit, the amplifier provides circuits for monitoring high frequency or intermediate frequency radio receivers which may be used in conjunction with the transmitting apparatus. A relay is also provided in the amplifier unit for keying the transmitter.

No field changes in effect at time of preparation (6 May 1958).

### RELATION TO OTHER EQUIPMENT

The speech-amplifier unit of this equipment, with the telephone assembly, is interchangeable with Speech Input Equipment NT-50064, which is used with Radio Transmitting Equipment TBL.

### ELECTRICAL AND MECHANICAL CHARACTERISTICS

#### SPEECH-AMPLIFIER UNIT

FREQUENCY RESPONSE: 300 to 3000 cps, flat  $\pm 3$  db.

AMPLITUDE DISTORTION: Less than 10% rms.

POWER OUTPUT: 3 W into 500 ohm load.

INPUT IMPEDANCE: 600 or 200 ohms.

#### MODULATOR UNIT

TYPE: Class B.

EMISSION: A1. A3.

FREQUENCY RESPONSE: Virtually flat from 250 to 3,500 cps.

AMPLITUDE DISTORTION: Less than 15% rms.

POWER OUTPUT: 250 W into 12,500 ohm load.

INPUT IMPEDANCE: 600 ohms.

MODULATION: 100%.

#### HAND TELEPHONE ASSEMBLY

##### IMPEDANCE

EARPHONES: 600 ohms at 1,000 cps.

MICROPHONE: 35 to 45 ohms.

POWER REQUIREMENTS: 115 v, 60 cps, single ph.

### MANUFACTURER'S OR CONTRACTOR'S DATA

Radio Corp of America, Camden, N.J.

Contract NXsr-65285, dated 15 June 1944.

Approximate Cost: \$987.00 with equipment spares.

### TUBE AND/OR CRYSTAL COMPLEMENT

(2) 6D6                      (2) 813                      (2) 2A3  
(1) 84                        (1) 5Z3

Total Tubes: (8)

No Crystals used.

### REFERENCE DATA AND LITERATURE

NAVSHIPS 900,778: Technical Manual for Speech Input and Modulator Equipment for TBK Transmitters.

#### TYPE CLASSIFICATION

DESIGN COGNIZANCE BUSHIPS

PROCUREMENT COGNIZANCE

STOCK NO.

### SHIPPING DATA

NUMBER OF BOXES	CONTENTS AND IDENTIFICATION	VOLUME (Cu.Ft.)	OVERALL DIMENSIONS (inches)	WEIGHT PACKED (lbs.)
1	Speech Amplifier NT-50055 Modulator Unit NT-50193 Hand Telephone Assembly NT-51008-A	17.7	24 X 31 X 41	324
1	Modification Kit			
1	Equipment Spares	5.0	17 X 22 X 23	156

### EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Speech Amplifier NT-50055	15-13/16 X 16 X 16	75
1	Modulator Unit NT-50193	14-1/2 X 17-1/2 X 24	120
1	Hand Telephone Assembly NT-51008-A	3-3/8 X 5 X 11-3/4	4.75
1	Modification Kit	17 X 23 X 24	75
1	Set of Equipment Spares	15 X 18 X 18	