

March 1957

VACUUM-TUBE KEYING UNIT

50059



Vacuum-Tube Keying Unit

FUNCTIONAL DESCRIPTION

The 50059 consists of an amplifier and rectifier designed for line operation of high speed telegraphic ink recorders. Incoming low level sinusoidal signals, keyed at high speed, are amplified and converted to direct current pulses of substantially flat top characteristics suitable for actuating the recorder. The function of this unit is to link automatically the high speed telegraphic incoming signals to ink recorders.

While primarily designed for differential operation of high speed recorders, provision is made for uni-directional operation as is required for operating certain other types of recorders and for vacuum tube keying of radio-telegraph transmitters.

No field changes in effect at time of preparation (4 September 1956).

ELECTRICAL AND MECHANICAL CHARACTERISTICS

KEYING SPEED (MAX): 5pp wpm, equivalent to 200 keying cps, max.
SIGNAL INPUT

FREQUENCY: 300 to 10000 cps.

SENSITIVITY: -10 db (with provisions for changing sensitivity)

LINE IMPEDANCE: 600 ohms.

OUTPUT, DIFFERENTIAL OR UNIDIRECTIONAL (UN-GROUNDED OR EITHER SIDE GROUNDED): 1600 ohm load, 40 v; 100000 ohm load, 125 v.

OUTPUT VOLTAGE LIMITS

DIFFERENTIAL OPERATION: Voltages of opposite polarity equal within 1 db.

UNI-DIRECTIONAL OPERATION: Min voltage change to be 40 db.

OUTPUT WAVE SHAPE: Essentially flat-topped.
AC ATTENUATION (MAX TONE SIGNAL OR HARMONIC IN OUTPUT): Less than 60 uv.

POWER REQUIREMENTS: 105 to 125 v, 50 to 60 cps, single ph, 150 W.

MANUFACTURER'S OR CONTRACTOR'S DATA

RCA MFG Co. Inc; Camden, N.J.

Contract NOs-91075, dated 26 August 1941.

TUBE AND/OR CRYSTAL COMPLEMENT

(1) 5Z3 (1) 6C6

(3) 76 (1) 84

(2) 807

Total Tubes: (8)

REFERENCE DATA AND LITERATURE

NAVSHIPS 954U5: Technical Manual for Vacuum-Tube Keying Unit Navy Type 50059.

TYPE CLASSIFICATION
DESIGN COGNIZANCE BUSHIPS
PROCUREMENT COGNIZANCE
STOCK NO.

EQUIPMENT SUPPLIED DATA

| QUANTITY PER EQUIPT | NAME AND NOMENCLATURE | OVERALL DIMENSIONS (inches) | WEIGHT (lbs.) |
|---------------------|----------------------------------|-----------------------------|---------------|
| 1 | Vacuum-Tube Keying Unit NT-50059 | 8-3/4 X 16 X 19 X | 72 |