

# SERVICE ENGINEERING BULLETIN File No.

Prepared by Commercial Engineering Division

NATIONAL UNION RADIO CORPORATION

RMA RELEASE NO. 392

TYPE 3C6

Nov. 30, 1944

TWIN TRIODE AMPLIFIER

## PHYSICAL SPECIFICATIONS

|                        |                 |
|------------------------|-----------------|
| CATHODE                | COATED FILAMENT |
| BASE                   | LOKAL 8-PIN     |
| BULB                   | T-9             |
| MAXIMUM DIAMETER       | 1-3/16"         |
| MAXIMUM OVERALL LENGTH | 2-25/32"        |
| MAXIMUM SEATED HEIGHT  | 2-1/4"          |
| RMA BASING NO.         | TBW-L-0         |

### PIN CONNECTIONS:

PIN 1 - POSITIVE FILAMENT  
2 - NO CONNECTION  
3 - PLATE #2  
4 - GRID #2

PIN 5 - GRID #1  
6 - PLATE #1 & GETTER FLAG  
7 - NEGATIVE FILAMENT (PARALLEL),  
FILAMENT C.T.  
8 - NEGATIVE FILAMENT (SERIES)

## MOUNTING POSITION

ANY

## DIRECT INTERELECTRODE CAPACITANCES (WITHOUT SHIELD)

|                                              |     |          |
|----------------------------------------------|-----|----------|
| GRID-TO-PLATE (EACH SECTION)                 | 1.7 | UUF      |
| INPUT (GRID-TO-FILAMENT-BASE) (EACH SECTION) | 1.7 | UUF      |
| OUTPUT (PLATE-TO-FILAMENT-BASE) SECTION 1    | 2.3 | UUF      |
| SECTION 2                                    | 1.8 | UUF      |
| PLATE #1 TO PLATE #2                         | 1.0 | MAX. UUF |
| GRID #1 TO GRID #2                           | .20 | MAX. UUF |
| GRID #1 TO PLATE #2                          | .06 | MAX. UUF |
| GRID #2 TO PLATE #1                          | .10 | MAX. UUF |

| <u>RATINGS</u> | <u>SERIES<br/>FILAMENT</u> | <u>PARALLEL<br/>FILAMENT</u> |
|----------------|----------------------------|------------------------------|
|----------------|----------------------------|------------------------------|

MAXIMUM FILAMENT VOLTAGE

DRY BATTERY OPERATION-VOLTAGE

MUST NEVER EXCEED

3.2

1.6 VOLTS

AC/DC POWER LINE OPERATION-DESIGN CENTER

2.6

1.3 VOLTS

MAXIMUM PLATE VOLTAGE

110

110 VOLTS

## TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

|                                   | <u>SERIES<br/>FILAMENT*</u> | <u>PARALLEL<br/>FILAMENT</u> |        |       |
|-----------------------------------|-----------------------------|------------------------------|--------|-------|
| FILAMENT VOLTAGE                  | 2.8 DC                      | 1.4DC                        | 1.4DC  | VOLTS |
| FILAMENT CURRENT                  | 0.050                       | 0.100                        | 0.100  | AMP.  |
| PLATE VOLTAGE (EACH SECTION)      | 90                          | 90                           | 90     | VOLTS |
| GRID VOLTAGE (EACH SECTION)       | 0                           | 0                            | -3     | VOLTS |
| PLATE CURRENT (SECTION #1)        | 4.5                         | 4.5                          | 1.4    | MA    |
| PLATE RESISTANCE (SECTION #1)     | 11,200                      | 11,200                       | 19,000 | OHMS  |
| TRANSCONDUCTANCE (SECTION #1)     | 1300                        | 1300                         | 760    | UMHOS |
| AMPLIFICATION FACTOR (SECTION #1) | 14.5                        | 14.5                         | 14.5   |       |
| PLATE CURRENT (SECTION #2)        | 3.2                         | 4.5                          | 1.4    | MA    |
| PLATE RESISTANCE (SECTION #2)     | 12,800                      | 11,200                       | 19,000 | OHMS  |
| TRANSCONDUCTANCE (SECTION #2)     | 1100                        | 1300                         | 760    | UMHOS |
| AMPLIFICATION FACTOR (SECTION #2) | 14.1                        | 14.5                         | 14.5   |       |

# SERVICE ENGINEERING BULLETIN

File No.

Prepared by Commercial Engineering Division

NATIONAL UNION RADIO CORPORATION

TYPE 306

\*BOTH GRIDS RETURNED TO F-PIN #8

SECTION #2 IS RECOMMENDED FOR THE OSCILLATOR WITH GRID LEAK RETUNED PROPERLY TO AVOID OSCILLATOR STARTING DIFFICULTIES.

FOR INTERPRETATION OF RATINGS REFER TO RECEIVING TUBE RATING SHEETS.

NOVEMBER 10, 1944