

# MODEL 3716

## SPECIFICATIONS

### Chassis Functions

L-1 chassis contains the tuning unit, R.F., I.F., and initial audio amplifiers, A.V.C., A.F.C., variable and fixed tone compensation and volume expander circuits. It also contains its own power rectifier which supplied field excitation for the 650DT4 twelve inch speaker.

L-2 chassis contains three individual band pass audio amplifiers in addition to the microphone pre-amplifier. It also contains its own filament supply transformer.

L-3 chassis serves as a power supply for rectified current to chassis L-2 and the field of the 651DT4 twelve inch speaker which is in series with the "B" supply to the high frequency audio amplifier.

L-4 chassis serves as a power supply for rectified current to the fields of the three small "tweeter" speakers and to the field of the large "auditorium" speaker. It also supplies power for the four auxiliary channel control lights.

The L-1 chassis contains all the tuned circuits of the receiver and is the only chassis which need be removed from the cabinet during alignment. All normal connections should be maintained. An output meter may be connected across the plates of the two 6N6 tubes in the output stage of this chassis.

### Tube Socket Voltage Readings

| Tube    | Item   | Function                   | L-1 CHASSIS |     |     |     |     |     |     |
|---------|--------|----------------------------|-------------|-----|-----|-----|-----|-----|-----|
|         |        |                            | H           | P1  | P2  | S   | SU  | K   | GA  |
| 6K7     | 73A    | R-F Amplifier              | 6.3         | 238 | -   | 105 | 2.5 | 2.5 | -   |
| 6A8     | 74     | Osc. - Mod.                | 6.3         | 238 | -   | 105 | -   | 2.5 | 170 |
| 6J7     | 76     | AFC Control                | 6.3         | 170 | -   | 130 | -   | 5.8 | -   |
| 6K7     | 73B    | I-F Amplifier              | 6.3         | 220 | -   | 105 | 3.0 | 3.0 | -   |
| 6K7     | 73C    | AFC Diode & I-F Amplifier  | 6.3         | 220 | -   | 100 | 3.0 | 3.0 | -   |
| 6H6     | 72     | AFC Detector               | 6.3         | -   | -   | -   | -   | -   | -   |
| 6R7     | 75     | Diode & 1st A-F Amplifier  | 6.3         | 80  | -   | -   | -   | 2.0 | -   |
| 6C5     | 78B    | A-F Driver                 | 6.3         | 220 | -   | -   | -   | 6.8 | -   |
| 6N6     | 77 A&B | (2) Output                 | 6.3         | 238 | 350 | -   | -   | 2.6 | -   |
| 5Z4     | 71 A&B | (2) Rectifiers             | 5.0         | -   | -   | -   | -   | 350 | -   |
| 6C5     | 78A    | Tuning Indicator Amplifier | 6.3         | 150 | -   | -   | -   | 0   | -   |
| W42419A | 92     | Neon Tuning Indicator Tube |             |     |     |     |     |     |     |
| W41187  | 79     | Auto-Expressionator Tube   |             |     |     |     |     |     |     |

Varies with power output  
Voltage drop across speaker field 112 volts.

### L-2 CHASSIS

| Tube | Item | Function                              | H   | P1  | P2  | S  | K   |
|------|------|---------------------------------------|-----|-----|-----|----|-----|
| 6F6  | 40B  | P.P. Medium & Low Frequency Amplifier | 6.3 | 170 | -   | -  | 15  |
| 6F6  | 40C  |                                       | 6.3 | 170 | -   | -  | 15  |
| 6N6  | 41G  |                                       | 6.3 | 255 | 290 | -  | 3.5 |
| 6N6  | 41H  | P.P. Parallel Low Frequency           | 6.3 | 255 | 290 | -  | 3.5 |
| 6N6  | 41I  | Output                                | 6.3 | 255 | 290 | -  | 3.5 |
| 6N6  | 41J  |                                       | 6.3 | 255 | 290 | -  | 3.5 |
| 6N6  | 41E  |                                       | 6.3 | 290 | 290 | -  | 0   |
| 6C5  | 39B  | H.F. Amplifier                        | 6.3 | 145 | -   | -  | 8.0 |
| 6F6  | 40A  | H.F. Driver                           | 6.3 | 170 | -   | -  | 15  |
| 6N6  | 41C  |                                       | 6.3 | 295 | 300 | -  | 0   |
| 6N6  | 41D  | P.P. H.F. Output                      | 6.3 | 295 | 300 | -  | 0   |
| 6J7  | 42   | Microphone Input Amplifier            | 6.3 | 125 | -   | 70 | 1.5 |
| 6C5  | 39A  | Phase Inverter                        | 6.3 | 140 | -   | -  | 12  |
| 6C5  | 39C  | Microphone Amplifier Driver           | 6.3 | 140 | -   | -  | 8   |
| 6N6  | 41A  |                                       | 6.3 | 290 | 295 | -  | 4   |
| 6N6  | 41B  | P.P. Microphone Output                | 6.3 | 290 | 295 | -  | 4   |

"B" Supply drain approximately 610 milliamperes.

### L-3 CHASSIS

| Tube  | Item | Function  | H   | K   |
|-------|------|-----------|-----|-----|
| 5Z4MG | 7A   | Rectifier | 5.0 | 350 |
| 5Z4MG | 7B   | Rectifier | 5.0 | 350 |
| 5Z4MG | 7C   | Rectifier | 5.0 | 370 |

### L-4 CHASSIS

| Tube  | Item | Function  | H   | K   |
|-------|------|-----------|-----|-----|
| 5Z4MG | 5A   | Rectifier | 5.0 | 240 |
| 5Z4MG | 5B   | Rectifier | 5.0 | 240 |

For alignment procedure, see pages 499 & 500.