

## RADIO SIGNAL SUPPRESSION IN TELEPHONE SETS

### 1. GENERAL

1.01 This section contains information on the reduction of radio interference in telephone sets.

1.02 It is issued to add information on the use of the KS-13814, List 7 capacitor.

1.03 While the KS-13814, L7 capacitor is no longer recommended for general use, it may be used as an optional suppressor in those areas where it has proved effective.

1.04 The KS-13814, List 7 capacitor shown in Fig. 1 may be the most effective device for eliminating radio interference in 500- and 700-type telephone sets.



Fig. 1 - KS-13814, List 7 Capacitor

1.05 The main wiring conditions which cause radio interference are:

- Abandoned drops still connected.
- Corroded connections.
- Loose wire terminations.
- Inside wire connected but not used.
- Drop wire located near transmitting antenna.
- Inside wire located near transmitting antenna.
- Defective telephone set cords.



*Check these conditions before using any suppression device.*

1.06 Telephone set components which act as demodulators of rf signals are:

- Varistors in the networks of some 500- and 700-type telephone sets.
- Carbon transmitters in handsets.

- The 44A varistor across the receiver unit in G-type hand sets.

### 2. INSTALLATION

2.01 The KS-13814, L7 capacitor is for radio interference suppression.

2.02 The KS-13814, List 7 capacitor is installed in the 500A, B and 501A, B telephone sets as shown in Fig. 2. It is connected across the L and RW terminals of the 311A equalizers. Place the capacitor against the equalizer as shown. Cover the exposed portions of the leads with tubular insulation.



Fig. 2 - 500A, B or 501A, B Telephone Set, KS-13814, List 7 Capacitor Installed

2.03 The KS-13814, List 7 capacitor is installed in the 500C, D and 501C, D telephone sets as shown in Fig. 3. It is connected across the F and L2 terminals of the 425B network. If the set is used as the tip station on 2-party message rate service, the capacitor should be connected across L1 and L2 of the 425B network. Cover the exposed portions of the capacitor leads with tubular insulation. For low-frequency interference, another KS-13814, List 7 capacitor may be needed across terminals R and RR on the 425B network.

2.04 The KS-13814, List 7 capacitor is installed in the 500J, K and 501J, K telephone sets as shown in Fig. 4. It is connected across the L2 and GN terminals of the 425A network as shown. Place the capacitor against the side of the network nearest the ringer. Cover the exposed portions of the capacitor leads with tubular insulation.

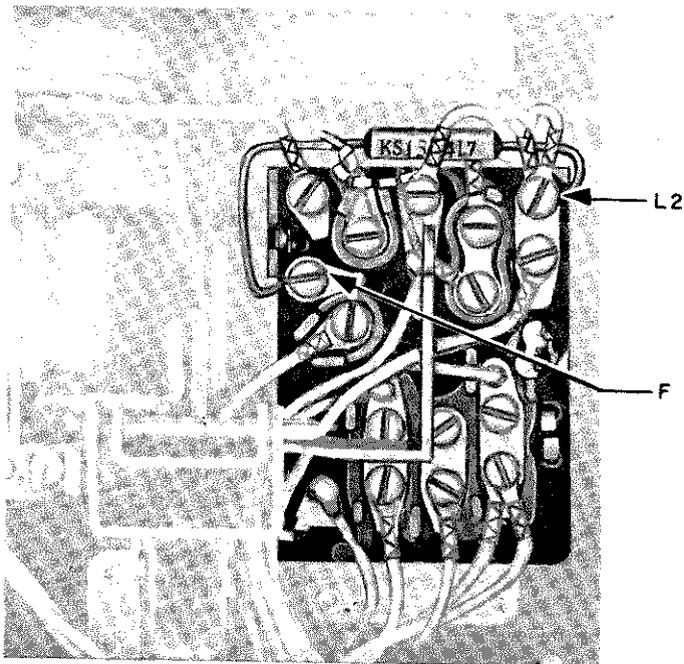


Fig. 3 - 500C, D or 501C, D Telephone Set,  
KS-13814, List 7 Capacitor Installed

2.05 The KS-13814, List 7 capacitor is installed in the 701B, 701D, and 711B telephone sets as shown in Fig. 5. It is connected between the F and C terminals of the 495A network. Cover the exposed portion of the capacitor leads with tubular insulation.

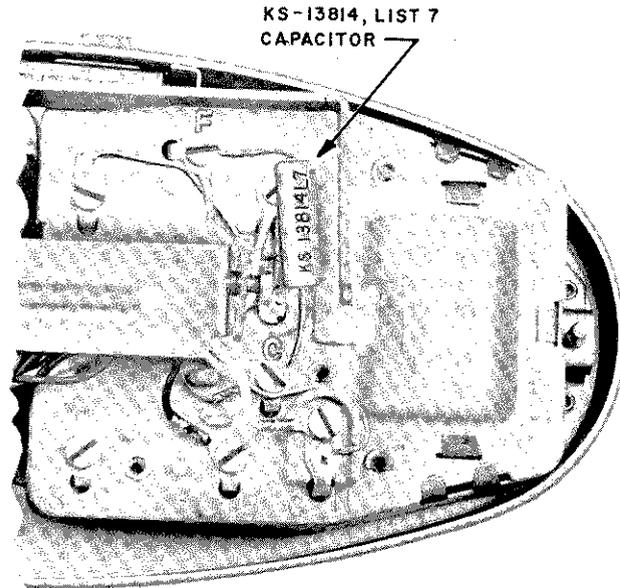


Fig. 5 - 701B or D, 711B Telephone Set,  
KS-13814, List 7 Capacitor Installed.  
Dial Removed for Clarity.

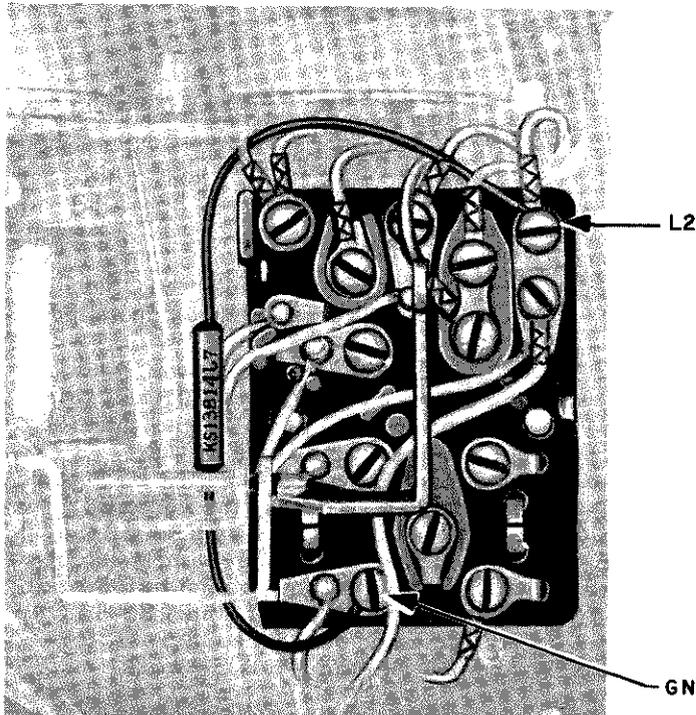


Fig. 4 - 500J, K or 501J, K Telephone Set,  
KS-13814, List 7 Capacitor Installed

2.06 The KS-13814, List 7 capacitor may be placed inside the G-type hand set to bypass the transmitter unit as shown in Fig. 6. Place the capacitor against the transmitter cup, keeping the capacitor leads as short as possible.

2.07 The KS-13814, List 7 capacitor may be used to bypass the 44A varistor on a U1 receiver unit as shown in Fig. 7. Place the capacitor against the varistor, keeping the capacitor leads as short as possible.

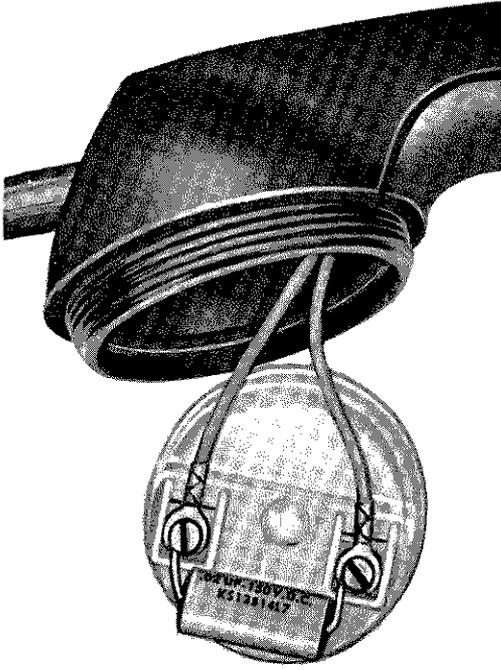


Fig. 6 - KS-13814, List 7 Capacitor,  
Handset Transmitter Cup



Fig. 7 - KS-13814, List 7 Capacitor,  
Handset Receiver Unit