

**BELL SYSTEM PRACTICES**  
**Station Installation and Maintenance**

**SECTION C54.104**  
**Issue 1, 7-29-31**  
**Standard**

## **AMPLIFIER EQUIPMENT FOR DEAF SUBSCRIBERS CONNECTIONS**

### **1. GENERAL**

1.01 This section covers the connections other than line and ringer connections, of equipment at stations where amplifier facilities are provided to assist subscribers with impaired hearing in the use of the telephone. Line and ringer connections are the same as at ordinary stations since the use of the amplifier involves no circuit changes in the ringer or in the subscriber set.

1.02 Stations for which connections are not covered herein require special treatment and should be referred to the Engineering Department.

1.03 **Sidetone Reduction Connection:** At existing common battery stations where an amplifier is used with sidetone sets, the connections shown provide **sidetone reduction**. If in such cases the loop resistance exceeds 180 ohms and the 323 transmitter is used (or 300 ohms when the 337 transmitter is used) the triple wire should be terminated at the subscriber set as follows so as to provide the **sidetone connection**:

Red conductor on "Y" terminal.

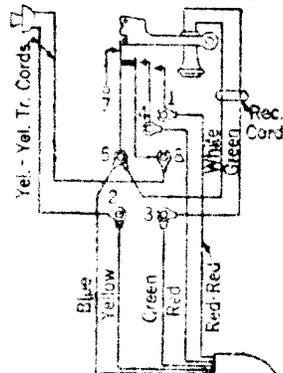
Yellow conductor on "R" terminal.

Green conductor on "GN" terminal.

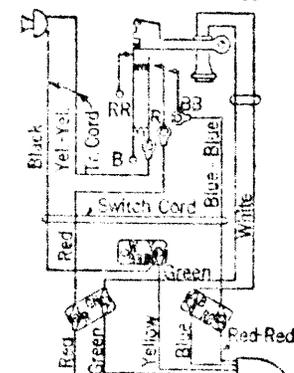
1.04 **P.B.X. Stations Equipped with Amplifier:** The supervisory relay of the amplifier adds 2.4 ohms to the normal loop resistance. It is therefore necessary wherever the combined resistance of a P.B.X. loop and this relay exceeds the limiting loop value, to provide a line relay at the P.B.X. in accordance with the usual practice. Cases requiring special consideration, as where long line equipment is necessary to obtain proper supervision, should be referred to the Engineering Department.

# AMPLIFIER INSTALLATIONS—SIDETONE EQUIPMENT

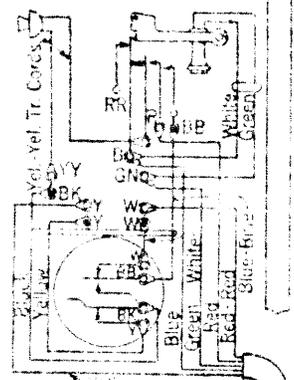
**20-CN OR 40-CN  
DESK STAND**  
MANUAL OR MAGNETO SERVICE



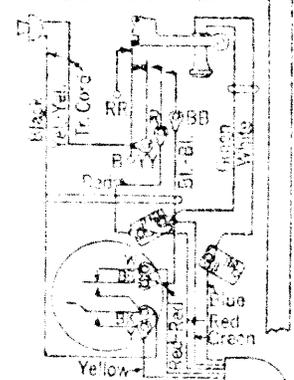
**51-CN DESK STAND**  
MANUAL OR MAGNETO SERVICE



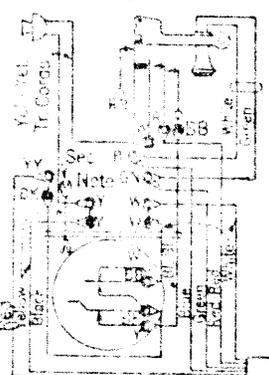
**50-CN DESK STAND**  
C.B. DIAL SERVICE



**51-CN DESK STAND**  
C.B. DIAL SERVICE

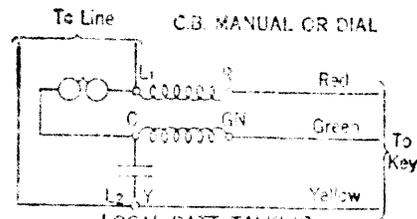


**50-CN DESK STAND**  
DIAL (LOCAL BATT. TALK)

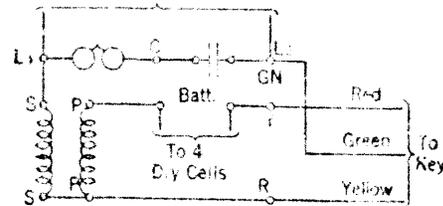


— NOTES —

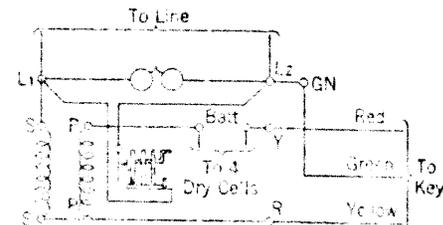
1. Connections for common battery manual and dial sidetone desk stand installations are shown for maintenance only.
  2. Tape both ends of yellow conductor.
- \* Includes local battery talking, common battery signaling manual service.



**LOCAL BATT. TALKING**  
**C.B. SIGNALING - MANUAL OR DIAL**  
To Line



**MAGNETO**



○ Terminal on Front of Rack  
● Terminal on Back of Rack

Fig. 1.



