

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

**SECTION C65.034**  
**Issue 1, 7-24-36**  
**AT&T Co. Standard**

**KEY EQUIPMENT 4A**  
**CONNECTIONS—COMMON BATTERY**

**1. GENERAL**

1.01 This section covers the common battery connections for Key Equipment 4A.

1.02 **Subscriber Sets.** For 550C, 550SC, 551A, 551B, 551D, 600C and 700C P.B.X. extension station lines provide the 684BM set and "X" wiring if holding feature is required. For other P.B.X. extension station lines and for central office lines provide the 684BK set. (See Fig. 1.)

1.03 Where holding is not required provide the 684BL subscriber set and "X" only for 550C, 550SC, 551A, 551B, 551D, 600C and 700C P.B.X. extension station lines. (See Fig. 2.)

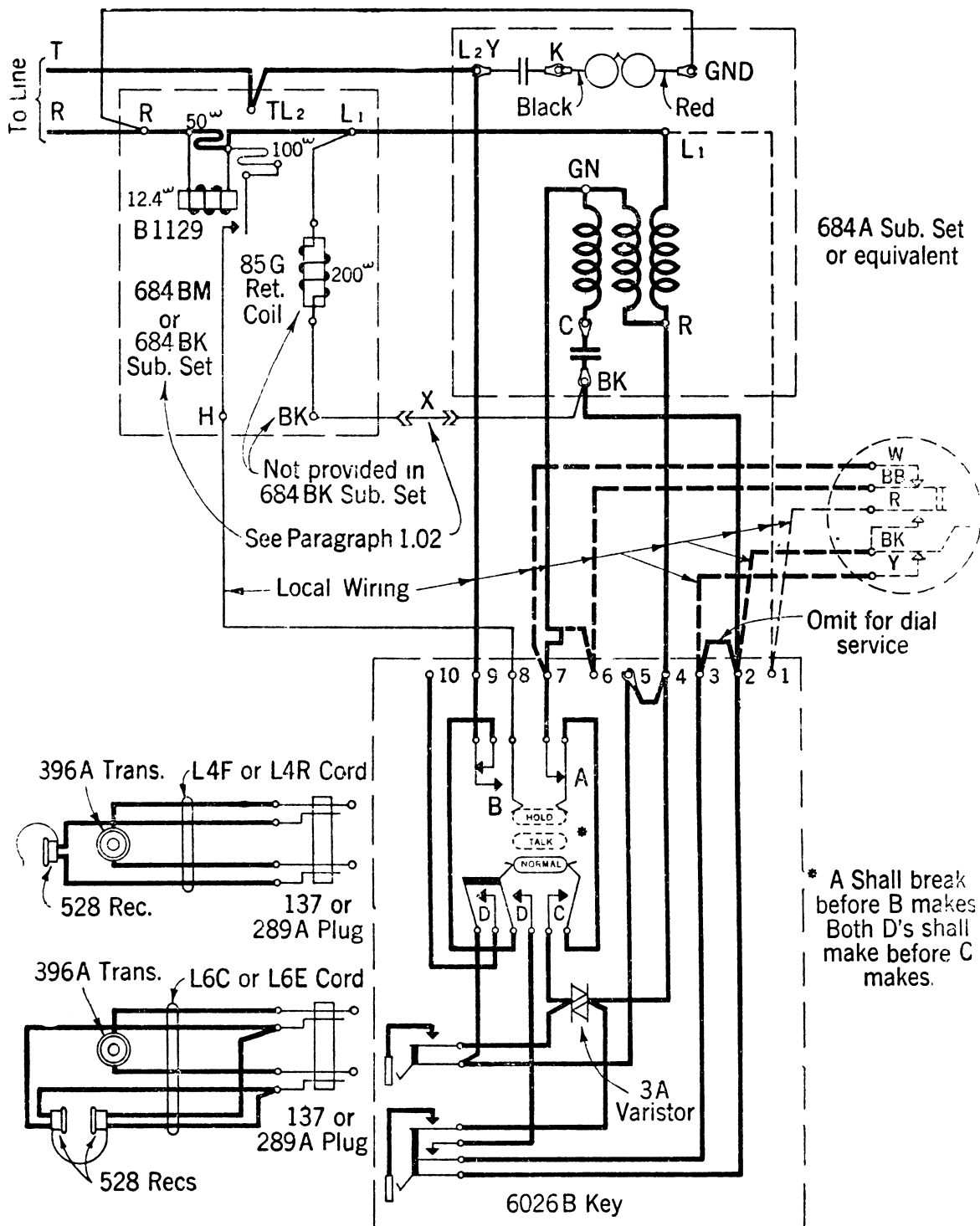
1.04 **Limitations.** The connections shown herein may be used with any common battery manual or dial central office subscribers' line circuit or P.B.X. station line circuit or any long line circuit arranged to supply station transmitter current except polarized ringing lines and two-party selective message rate dial lines.

1.05 When computing the allowable conductor loop resistance between this circuit (4A Key Equipment) and the associated circuits, the values shown in Table 1 shall be deducted from the working limits of the connecting circuits (maximum loop resistance of central office or extension line, etc.). The values shown in the table for deduction represent the station apparatus resistance of this circuit and replace the 115 $\omega$  resistance value which is generally used when determining the working limits of a connecting circuit.

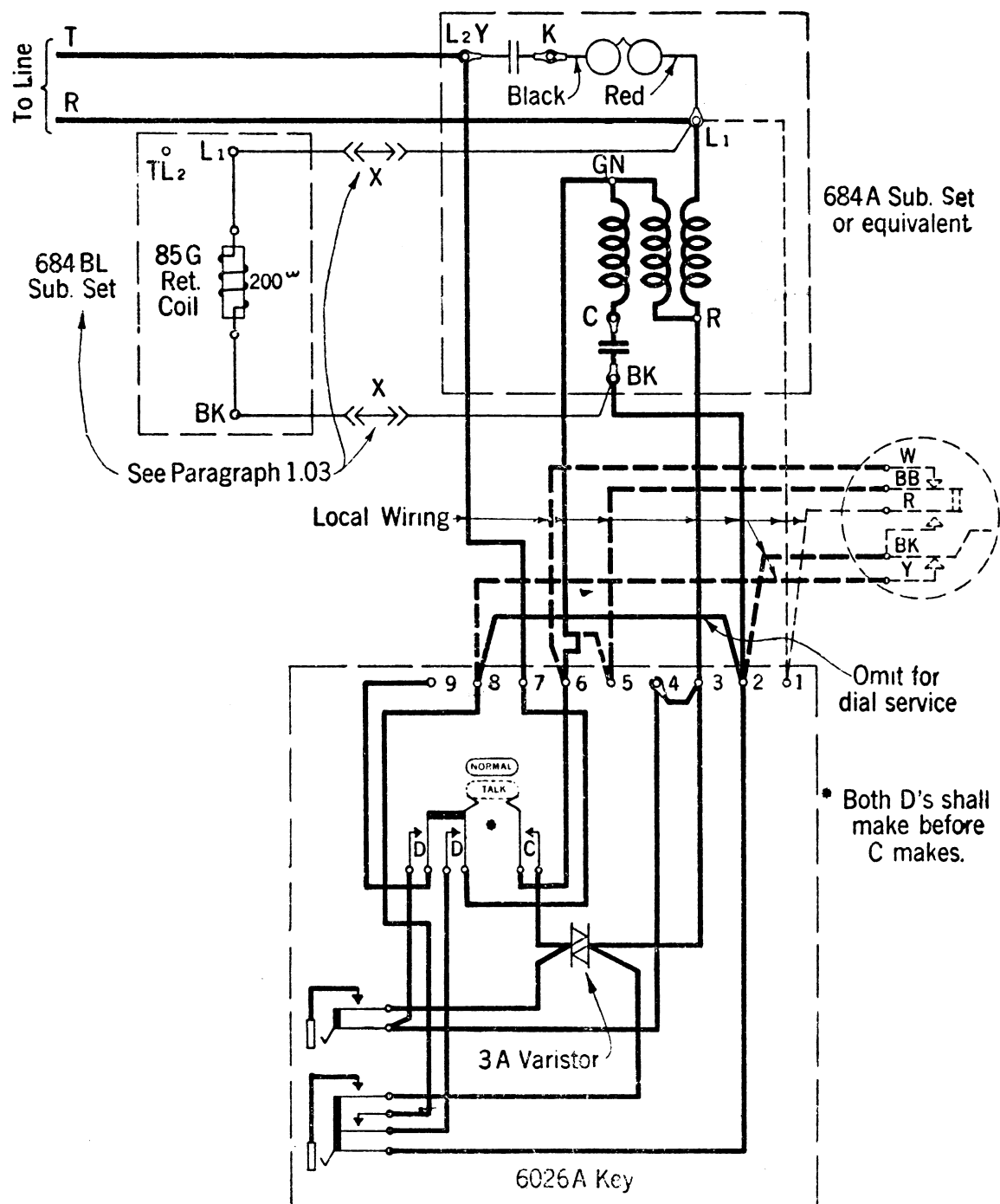
**Table 1**

	<b>Station Apparatus Res.</b>
Fig. 1 with "X" wiring .....	140 $\omega$
Fig. 1 without "X" wiring .....	355 $\omega$
Fig. 2 with "X" wiring .....	130 $\omega$
Fig. 2 without "X" wiring .....	345 $\omega$

1.06 To avoid possible crosstalk, the wiring between the key, dial and subscriber sets shall not exceed 10 feet and shall not parallel other telephone wiring. Where subscriber sets for station systems (wiring plans, etc.) are located so that this limit will be exceeded, the talking circuit in the subscriber set having relay equipment should not be used, but a separate subscriber set should be located near the key to provide the talking circuit.



**Fig. 1—Key Equipment 4A Arranged for Holding (Manual and Dial).**



**Fig. 2—Key Equipment 4A (Manual and Dial).**