

BLM # 875 B

TELEPHOTOGRAPH APPARATUS COUPLING TO TELEPHONE LINES

1. INTRODUCTION

1.01 This section was formerly Section C70.330 and is being reissued to place it in the Plant Series.

1.02 This section covers the identification, installation, and connections of the 104A and 105A coupling units used to couple telephotograph apparatus to telephone lines.

2. IDENTIFICATION

2.01 The 104A coupling unit consists of a repeating coil and a 333A or 426A electron tube enclosed in a metal case. The case is equipped with a handle, two binding posts, a toggle switch, and a D3BA cord with a 283B-9 plug (Fig. 1). This unit, formerly used at temporary locations, is now rated A&M Only.

2.02 The 105A coupling unit is the same as the 104A coupling unit except that it is equipped with four external screw terminals, and the handle, cord, plug, and switch are omitted

(Fig. 2). This unit, formerly used only at permanent locations, is now used at either temporary or permanent locations.

3. GENERAL

3.01 By means of a 104A or 105A coupling unit, the press or other authorized persons may connect telephotograph apparatus to telephone lines for the purpose of sending or receiving pictures over exchange or toll message connections.

3.02 These coupling units are not required for customers on schedule 1 or schedule 2 telephotograph channels, or at customer locations of private line telephone service where these services are used for telephotograph transmission on an alternate use basis. However, at these locations it is required that the telephotograph apparatus meet the usual telephone company requirements in regard to the voltages and currents impressed upon telephone company facilities by customer-owned equipment.

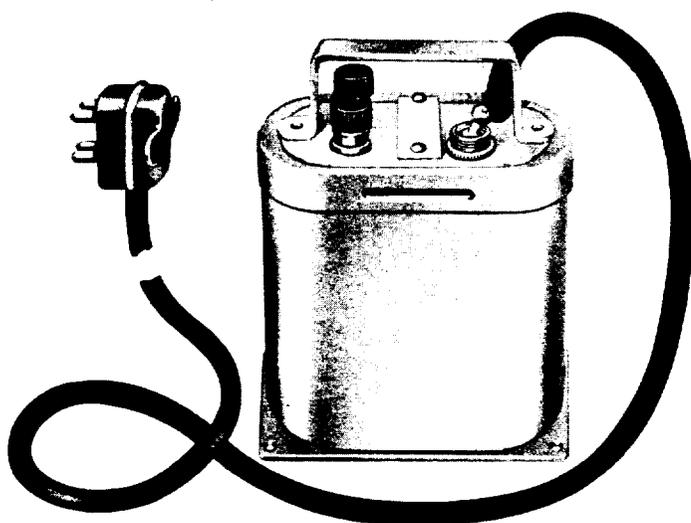


Fig. 1 - 104A Coupling Unit

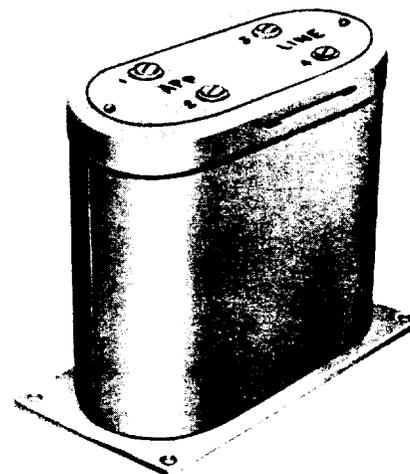


Fig. 2 - 105A Coupling Unit

3.03 The purpose of the coupling unit is to:

- Reduce the possibility of impressing excessive voltages to ground on the line.
- Prevent the impression of excessive noise influence levels on the telephone line.

3.04 When monitoring is required, the station side of the coupling unit may be bridged by a high-impedance loudspeaker or headband receiver. Generally, a 100-type loudspeaker or a 509, 716C, or 717A receiver is used for this purpose. Where the 100-type loudspeaker set is to be used for monitoring, it will be desirable to increase its internal input impedance by 3000 to 5000 ohms. A resistor such as the 63- or 106-type may be connected in series with the input of the loudspeaker set. If one of the conductors from the customer's machine is grounded, the resistor should be connected in the ungrounded side. If the output circuit of the customer's machine is ungrounded, resistors of equal value should be connected in each of the two conductors leading to the input circuit of the 100-type loudspeaker set.

3.05 The telephotograph apparatus will in all cases be furnished and installed by the customer. The 104A or 105A coupling unit, and monitoring equipment if required, will be furnished and installed by the telephone company.

4. CONNECTIONS

4.01 Fig. 3 through 8 show the various methods of connecting the coupling units to telephone lines.

4.02 Note that with the 6017K key normal, the telephone set may be used in the regular manner. With the key operated, the coupling unit is connected to the line. Regardless of the position of the key, the line is opened when the handset is restored. This avoids a permanent signal should the key accidentally be left off normal following the completion of a call.

4.03 In Fig. 5, the 6017K key also opens the transmitter circuit of the magneto subscriber set to prevent a drain on the batteries when the coupling unit is on the line.

5. INSTALLATION

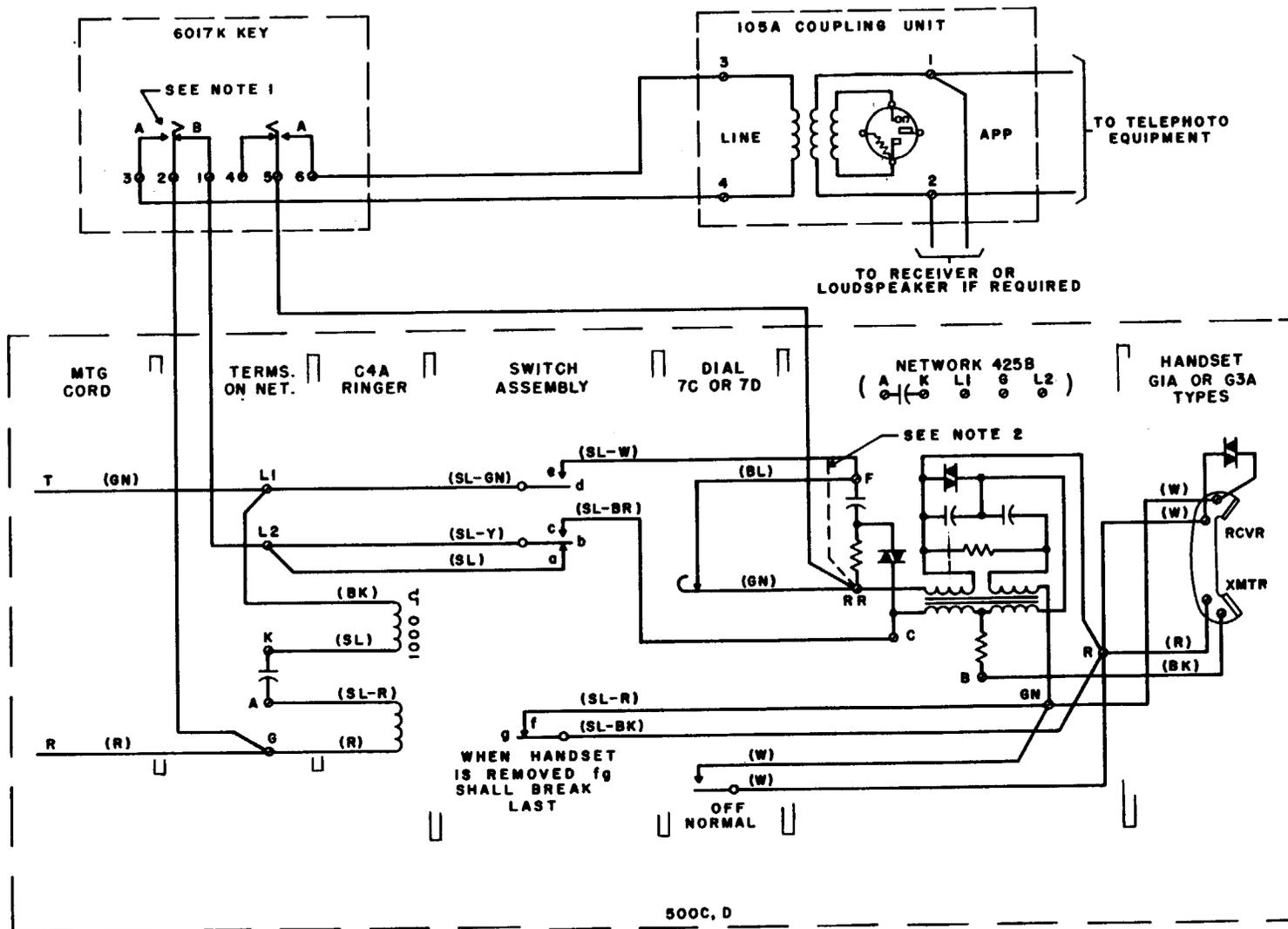
5.01 Install the telephone sets, 6017K key, and subscriber set where used, in accordance with the specific sections covering the installation of these items.

5.02 Mount the coupling unit where it will be convenient for the customer to bridge the telephotograph apparatus to it.



Do not mount the coupling unit near transformers, motors, or other electrical equipment capable of inducing transient or other electrical disturbances into the circuit through the coupling unit. Check with the telephotograph personnel to make certain that no objectionable induction will be experienced.

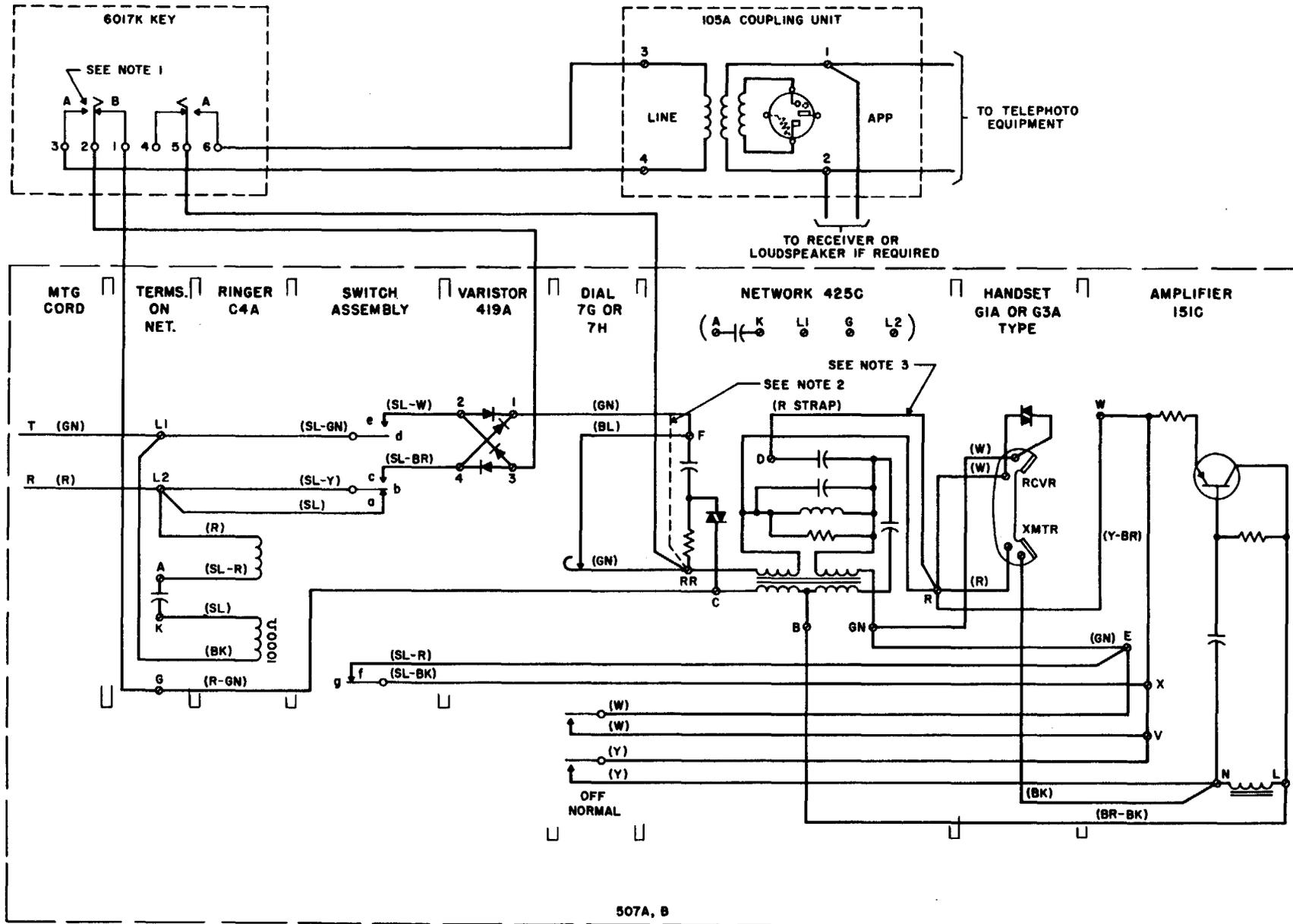
5.03 Using the four mounting holes in the base of the 105A coupling unit, attach it to the mounting surface with fasteners of sufficient length and number to hold it securely.



Note 1: All A contacts shall make before the B contacts break.

Note 2: For manual service remove dial and move SL-W lead from F to RR terminal.

Fig. 3 - Connections using 500C, D Telephone



Note 1: All A contacts shall make before the B contacts break.

Note 2: Green varistor lead is connected to F terminal in dial sets and to RR terminal in manual sets.

Note 3: When unusually high sidetone is experienced, transfer red strap from D terminal to R terminal.

Fig. 4 - Connections using 507A, B Telephone

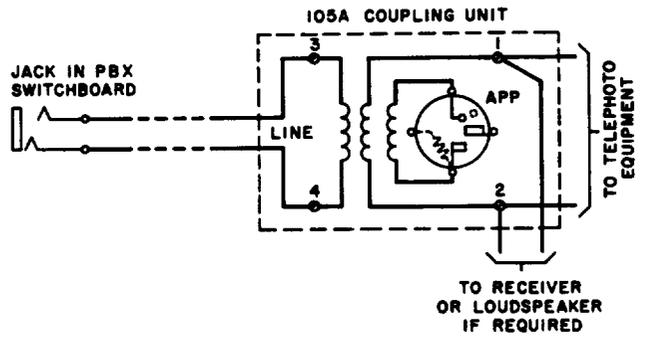
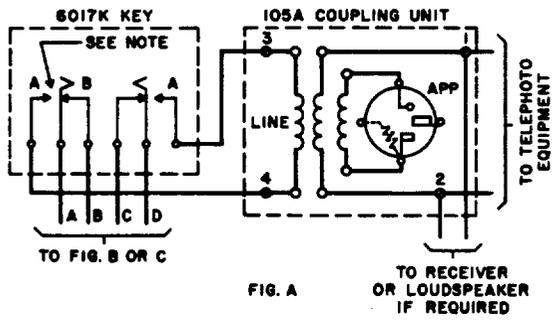


Fig. 6 - Special PBX Extension Connections (No Set Required)

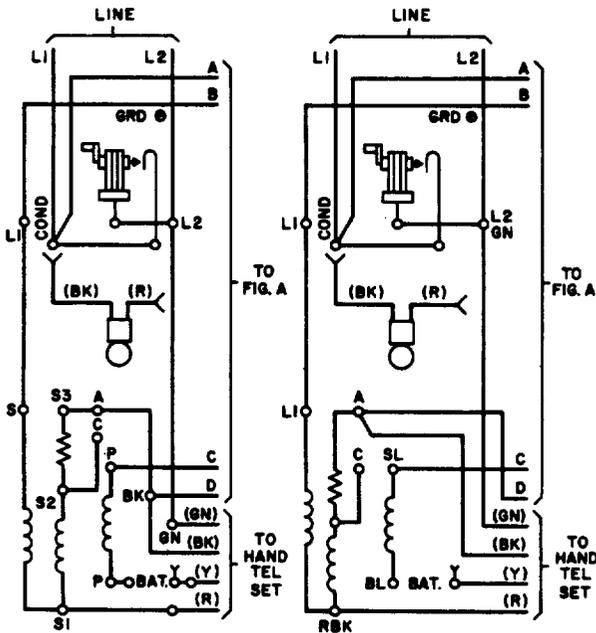
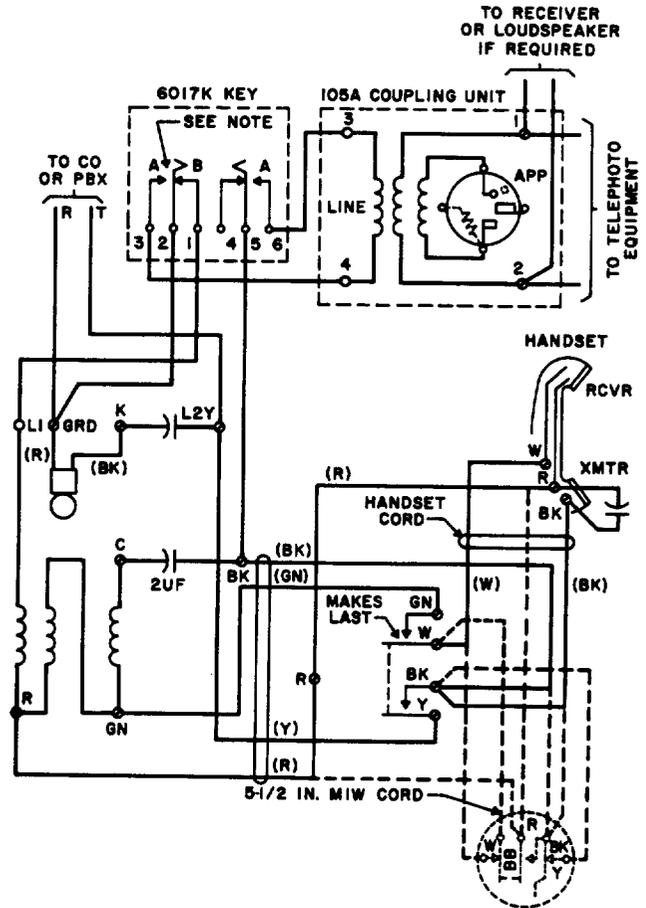


FIG. B
400K SUBSCRIBER SET
WITH H3D INDUCTION COIL
REFER TO FIG. C IF SET
HAS 104A INDUCTION COIL

FIG. C
415H OR 415CD
SUBSCRIBER SET
WITH 104A INDUCTION COIL
REFER TO FIG. B IF SET
HAS H3D INDUCTION COIL

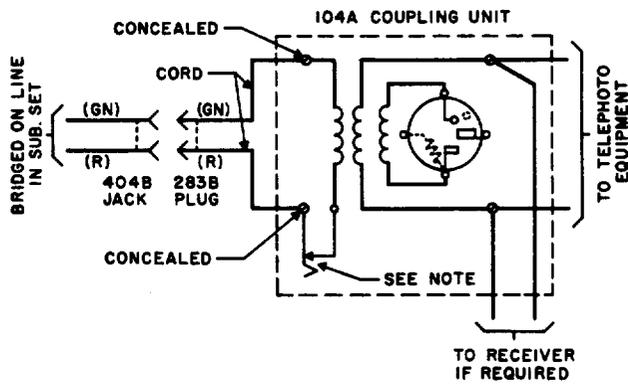
Note: All A contacts shall make before the B contacts break.

Fig. 5 - Connections to Magneto Subscriber Set



Note: All A contacts shall make before the B contacts break.

Fig. 7 - Connections to Common Battery Subscriber Set



Note: During picture transmission this switch should be closed, and the telephone set receiver should be on the hook. When the telephone is in use, the switch should be open. When the switch is operated from one position to another, the receiver should be off the hook to avoid a disconnect.

Fig. 8 – Connections for the 104A Coupling Unit (A&M Only)