

COIN TELEPHONE  
COIN LEVEL VOLUME SENSOR

1. GENERAL

1.01 This section is issued to provide procedures for installing the Dracon Industries Coin Volume Sensor in the coin telephone.

1.02 The Coin Volume Sensor (CVS) provides a means of monitoring the level of coin fill in the coin telephone. The CVS provides a signal to inform the CO that the coin box is full.

1.03 The purpose of signaling is to determine when collections are necessary. Urban or high-traffic locations may require 24 to 48 hours for collection, and the rural or low-traffic locations may require a longer period of time for collections.

2. DESCRIPTION

2.01 Inside the coin box, a metal probe (Figure 1) is connected from the outside, via a slide contact, to a 39-kilohm resistor mounted on the level sensor (Figure 2). The level sensor is a printed wiring card that is magnetically fastened to the side wall of the coin vault (Figure 2). An insulated lead connects the 39-kilohm resistor to the ring side of the line through the break contacts on the hookswitch. Another lead provides a solid ground connection to the coin box.

2.02 When the coin box fills to the predetermined level, the coins provide an electrical path between the probe and the coin box. This connects the ring side of the line to ground through the 39-kilohm resistor and the break contacts (normally closed) of the hookswitch. Thus, when the coin telephone is idle (on-hook), a 39-kilohm lead to ground is placed on the ring side of the line. When the telephone is busy, the 39-kilohm lead to ground is removed.

NOTE: At the CO, the 39-kilohm resistance between the ring conductor and ground can be detected by a line insulation routiner or test set and interpreted as a full coin box.

3. MATERIAL REQUIREMENTS

3.01 The following materials are required to install the CVS in the coin telephone vault when the telephone company performs the work in local rehabilitation/repair shops:

- (a) A coin box.
- (b) A suitable arbor press (available equipped with a punch die for accurately and conveniently piercing the side of a coin box to receive rivets for the probe as shown in Figure 1).
- (c) A manual rivet gun for setting the copper rivets.
- (d) A probe assembly (Figure 1), required for installation into the coin boxes used in coin telephones.
- (e) A level sensor (provided with magnets on the back).

NOTE: A coin box level sensor is available for three-slot coin telephones and single-slot coin telephones.

4. INSTALLATION

Telephone Company

4.01 To install the CVS, perform the following steps:

- (a) Pierce the side of the coin box with the arbor press and punching die tool (Figure 1).

NOTE: Installation of the probe cannot be done in the field. It is installed (at local company option) in local repair shops or by the manufacturer with a special heavy-duty rivet gun.

- (b) The level sensor is magnetically placed up against the right-hand wall of the coin telephone vault (Figure 2).
- (c) The leads from the level sensor are connected to terminals available in the coin telephone (Figures 2 and 3).
- (d) After the level sensor is securely in place, the coin box is placed inside the vault. This will set contact with the two special copper rivets that are in the side of the coin box, to the two electrodes on the front of the level sensor.

Manufacturer

4.02 If the coin box modification is to be performed by the manufacturer (Dracon), arrangements shall be made with the GTE Automatic Electric warehouse.

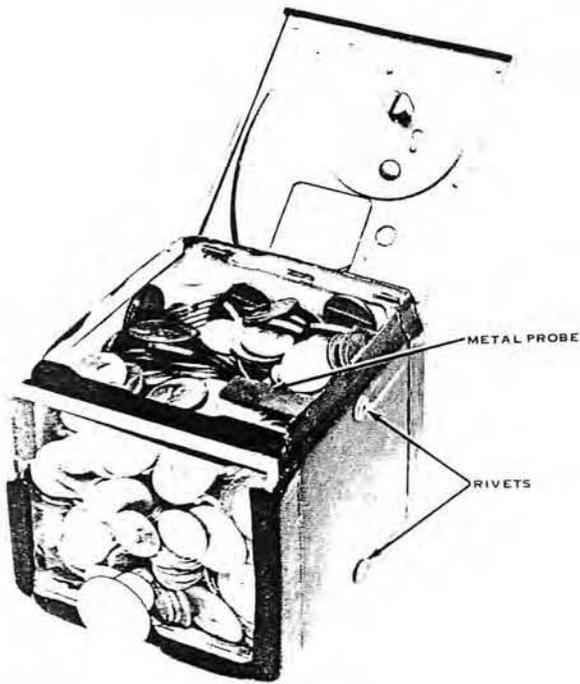


Figure 1. Filled Coin Box.

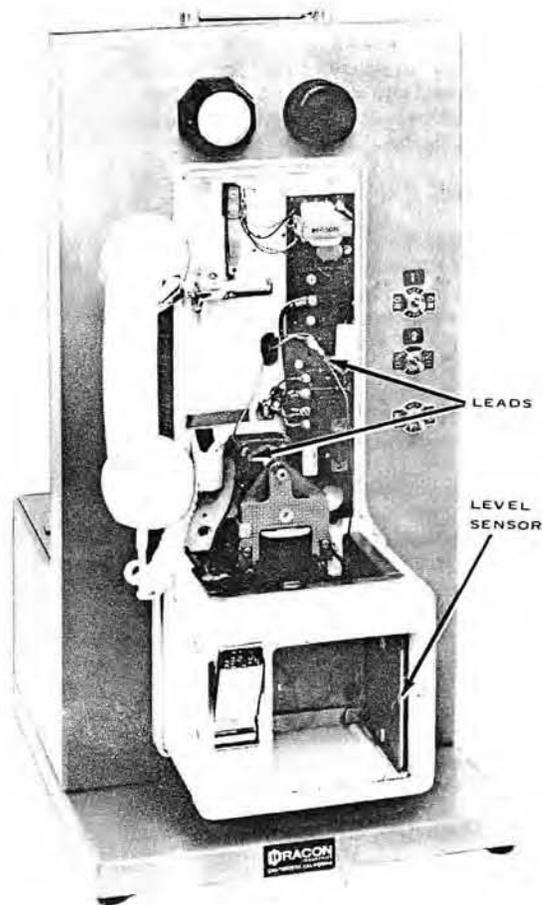


Figure 2. Coin Telephone Housing.

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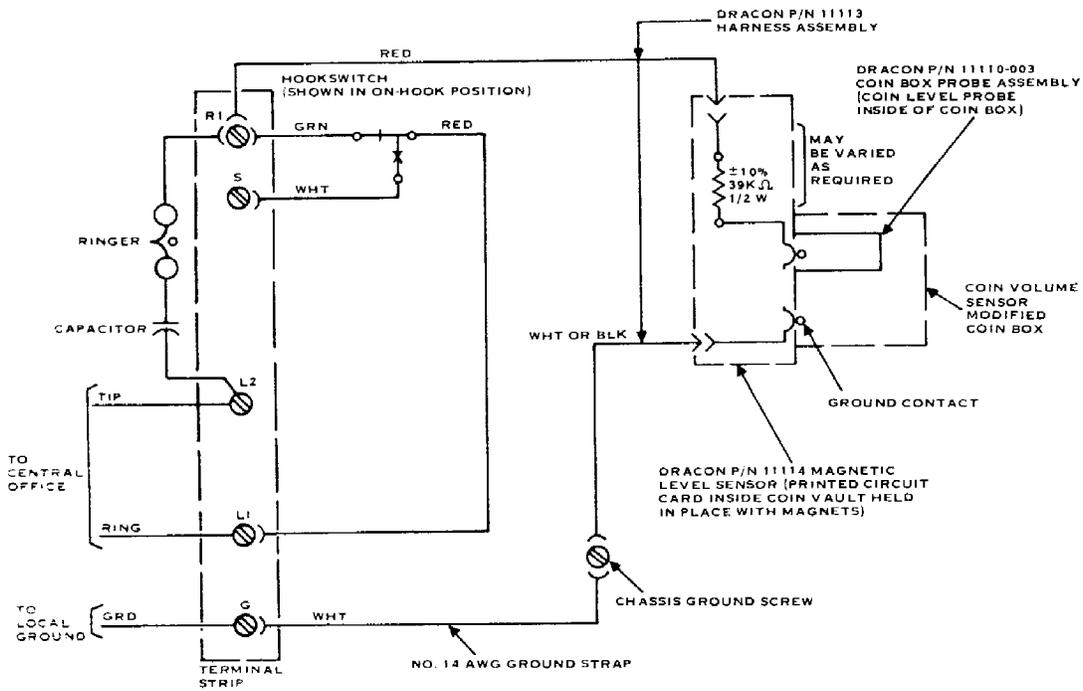


Figure 3. Wiring Diagram for Coin Volume Sensor.