

BELL SYSTEM PRACTICES
Station Installation and Maintenance

SECTION C64.257
Issue 2, July, 1954
AT&T Co Standard

COIN COLLECTORS

MULTISLOT TYPES

TESTS ON TROUBLE VISITS

1. GENERAL

1.01 This section covers procedures for station visits resulting from trouble reports. Steps for the testing procedures shall be followed in numerical sequence. The section is reissued to make minor changes and corrections.

1.02 For detailed information on Coin Collectors, Multislot Type Maintenance, refer to Section C42.144, paragraph numbers of which are shown in parentheses in this section.

1.03 All tests shall be made regardless of when or where the trouble is found. Obvious trouble, such as damage to receiver or handset, shall be corrected before making any tests.

1.04 A new tool known as the KS-14995 coin collector tool, similar to a tongue depressor, contains useful information for the craftsman, as described in Part 4.

2. GENERAL TESTS

2.01 Clear Stuck Coins:

- (a) If coin is not visible in coin gauge, make Coin Chute Operation and Refund Test (6.01, 6.02).
- (b) **Coin Gauge:** Clear with finger or orange stick. If gauge is mutilated, replace upper housing or coin collector.
- (c) **Coin Chute** (4.03, 4.04): Clear with finger or orange stick. If damaged or dirty, replace chute.
- (d) **Coin Hopper:** Clear by manual operation of relay or, on prepayment type, use orange stick. Use orange stick on postpayment type or replace coin collector (11.03, 12.02).

- (e) **Coin Receptacle** (5.01): Level coins. Report for collection as required.
- (f) **Coin Return Shield** (5.12): If shield is damaged or binding, replace it. If relay cover interferes with pin, rearrange cover or replace shield.
- (g) **Cord Interference** (4.04): Dress and clamp cords.
- (h) **Foreign Material in Coin Return**: Remove, following local instructions. If coin return is badly rusted, replace coin collector.
- (i) **Defective Pull Bucket Return**: (See Addendum C42.144← par. 5.13).
- (j) **Defective Coins**: Follow local instructions.

2.02 **Trap and Vane Release** (5.05, 5.03): 147A gauge and KS-14995 coin collector tool. Both sides of relay.←
If mechanism does not restore, clear:

- (a) Vane binding on bearings or hopper wall.
- (b) Trap catching on vane or roller.
- (c) Fork binding on vane stem. Replace trap, relay, or coin collector as required.

2.03 **Bias Margin** (5.04, 5.05): 146A gauge, both sides of relay. Trip trigger, operate electrically. If no relay operation or trigger restoral:

- (a) Remove magnetic particles (5.14b).
- (b) Replace relay or coin collector if required.

2.04 **Housing Crossed with Station Wiring (Ungrounded Coin Collector)** (6.03, 6.04): Temporary wire through coin return to ground, replace upper housing, switchhook down or switchhook up. If clicks are heard in hand test set:

- (a) Correct defects in station wiring.
- (b) Replace coin collector.

2.05 **Ground or Power on Booth Lining (Ungrounded Booths)** (6.05, 6.06): Upper housing off. Clip onto battery side of line. Touch linings.

(a) If click is heard, booth is grounded. BX or local wiring may be touching lining.

(b) If loud 60-cycle hum is heard, booth is crossed with power. Defective BX or light switch.

2.06 Inspections on Station Visits: C61.701.

2.07 Dials (4.11, 4.12): Check speed per C34.175, Station Dials, 2-, 4-, and 5-Types Maintenance. Replace dial or upper housing.

2.08 Station Tests (6.08, 6.09):

(a) Noise or cutouts, move upper housing and transmitter (receiver-transmitter type).

(b) Clean or adjust housing contact springs and equalizing spring.

(c) Replace noisy cords.

2.09 Cleaning:

(a) Remove loose dust and dirt. Brush and Dextilose paper.

(b) **Instruments and Exterior:** Moist Dextilose paper.

(c) **Coin Gauge:** Petroleum spirits and pipe cleaner.

(d) **Coin Return:** Petroleum spirits and nylon brush.

2.10 Coin Chute Operation and Refund (6.01, 6.02): Upper housing in place.

(a) Coin channels clear.

(b) Operation of latches (10¢).

(c) Operation of relay and hopper.

3. ADDITIONAL TESTS

3.01 Dial Shorting (7.02 to 7.05).

(a) Ground spring contact separation minimum 0.010 inch, force minimum 3 grams.

(b) Dial shorting contact shall shunt dial; if not, replace relay.

3.02 Long Loop (8.02).

- (a) Check S36 relay operation.
- (b) Adjust relay or replace subscriber set.

3.03 Dial Postpayment (CDO) (11.02 to 11.10):

- (a) **Mechanical:** Shall have 31A varistor, trap to be of proper type. Trap shall operate fully; if not, replace coin collector.
- (b) **Operation:** Shall complete circuit when trap is operated manually. If not, burnish electrically open contacts or replace coin collector. Check varistor, resistance, line reversal, or line and central office circuits.
- (c) **Varistor:** Shall reduce clicks due to trap operation on calls to operator. If not, replace varistor.
- (d) **Cross with Wiring:** Omit unless station ground is available or cross is suspected.
- (e) **Coin Chute Operation and Refund:** Use 529A Tool.
 - (1) Coin channels clear.
 - (2) Operation of latches (10¢).
 - (3) Electromagnet arm shall move into channel on operator calls (10¢).
- (f) **Coin Signals:** Use 529A Tool.

3.04 Manual Postpayment (5¢) (12.02 to 12.04):

- (a) Replace coin collector if coin sticks in hopper without clear-out holes.
- (b) **Cross with Wiring:** Standard test.
- (c) **Coin Signals:** Use 529A Tool.

4. USE OF PRINTED TOOL

4.01 A KS-14995 coin collector tool has been developed to take the place of the tongue depressor used for operating the trap manually (5.02). Brief summaries of the trouble clearing and apparatus replacement procedures are printed on the front and back of this tool, as shown in Fig. 1, to serve as a reminder to experienced craftsman.

**COIN STATION
TROUBLE VISIT**

STUCK COINS

TEST WITH
NICKEL, DIME,
& QUARTER

USE FINGERS OR
ORANGE STICK

**TRAP & VANE
RELEASE**

70 SLOT
147A GAUGE
SLOWLY

BIAS MARGIN

146A GAUGE

**HOUSING
NOT CROSSED
(GROUND)**

**BOOTH NOT
GROUNDED
(BATTERY)**

**CONDITION OF
APPARATUS
& WIRING**

DIAL SPEED

**TRANSMISSION
NOISE
CUTOUPS**

CLEAN

BRUSH OUT

HOUSING:
DEXILOSE
PAPER

GAUGE:
PETROLEUM
SPIRITS

**CHUTE
OPERATION
& REFUND**

**REPLACEMENT
CONDITIONS**

COIN CHUTE

COINS WEDGED
OPERATE FAILURE

DAMAGED
OR DIRTY

COIN RELAY

OPERATE FAILURE

TRAP & VANE
FAILURE
(NOT IN HOPPER)

BIAS MARGIN
FAILURE

TRAP

CATCHING ON
VANE OR ROLLER

RETURN SHIELD

BINDING
OR DAMAGED

DIAL

SPEED, NOISE

**COIN
COLLECTOR**

GAUGE
MUTILATED

COIN RETURN
BADLY RUSTED

DEFECTIVE
PULL BUCKET

FAILURE NOT
CLEARED BY
REPLACING:
CHUTE
RELAY
TRAP

BINDING VANE

SHORTING AT
HOUSING SPRINGS

DEFECTIVE
WIRING

Front

Back

Fig. 1—KS-14995 Coin Collector Tool