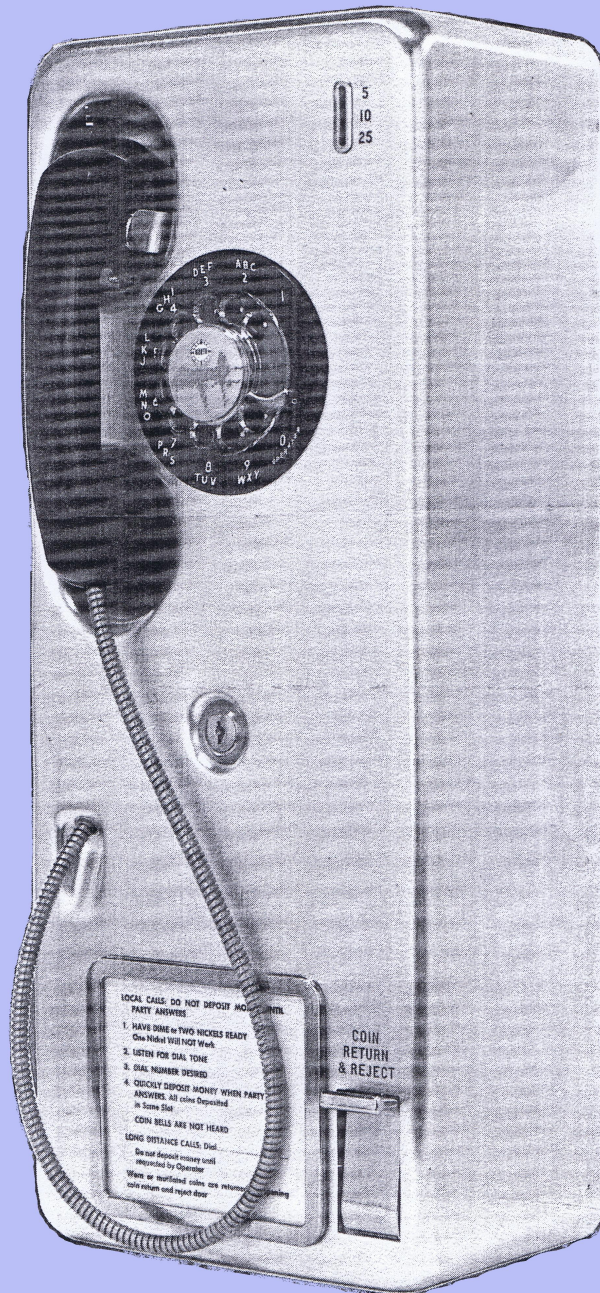


INSTALLATION INSTRUCTIONS for the NORTH MODEL N-103 COIN TELEPHONE



TOOLS AND EQUIPMENT

The following list of tools and equipment is suggested to aid in the proper installation of the unit.

TOOLS

Carpenter's level
4-inch screw driver
5/32 Allen head wrench (for use with mounting screws supplied with set)
Diagonal pliers
Wire stripper (optional)

EQUIPMENT

Handset, NEC Part No. 553222 (optional)
Local Prepay Adapter, NEC Part No. 552062 (for Local Prepay Service only)
Backboard, flat wall mounting, NEC Part No. 552658 (optional)
Backboard, corner mounting, NEC Part No. 552659 (optional)

MOUNTING

For best results, the Coin Telephone should be mounted so that it is not more than 3/4 inch out of plumb in any direction. A carpenter's level will facilitate leveling the booth or mounting surface to the required degree of accuracy.

The outline and mounting dimensions of the Coin Telephone are given in Figure 1. The six mounting holes in the rear surface of the telephone are drilled to provide clearance for 1/4-inch diameter screws. Note that the lowest mounting hole is inside the coin safe.

No provision is necessary for a separate ringer box as the Coin Telephone is completely self-contained.

Two backboards for mounting the telephone are available. (See tools and equipment above.) The six 1/4-20 X 3/4 internal hexhead screws supplied with the Coin Telephone may be used to mount the telephone to either of these backboards, which have threaded inserts to accept the screws. A 5/32 Allen wrench may be used to tighten these screws. However, a 5/32 T-handle Allen wrench, 6-inches long, will speed the work.

Unlock the outer housing by inserting the key into the lock and turning it counterclockwise, approximately five full turns, until the outer housing can be removed.

Insert the end of the station wire from the back of the inner housing through the 3/8-inch rubber grommet.

Start the two upper screws into their mounting holes. Do not completely tighten; leave them loose enough so that you can still pull the bottom of the Coin Telephone about 1-1/4 inches out from the mounting surface. Insert a screw into the mounting hole just above the coin control assembly, pulling out the bottom of the set to do so. Tighten this screw down snugly.

CONNECTIONS

Prepay Service

Connect the line to the Coin Telephone as follows:

Tip (+) to terminal L2

Ring (-) to L1 PRE

Also provide a suitable ground at the installation site and wire to terminal G.

The two-pin plug (P4A) in Figure 2A, should be plugged into the two left-hand positions of the upper horizontal jack strip; the eight-pin plug (P4B) should occupy the remaining positions as shown. Do not remove the four-pin plug (P3) at the left.

Remove the coin tone oscillator from its protective envelope and install as described under OSCILLATOR INSTALLATION in this booklet.

Local Prepay Service

Connect the line to the Coin Telephone as follows:

Tip (+) to terminal F

Ring (-) to terminal L2

Also provide a suitable ground at the installation site and wire to terminal G.

Install 552062 Local Prepay Adapter in accordance with Instruction 552131 accompanying the adapter.

Remove the coin tone oscillator from its protective envelope and install as described under OSCILLATOR INSTALLATION in this booklet.

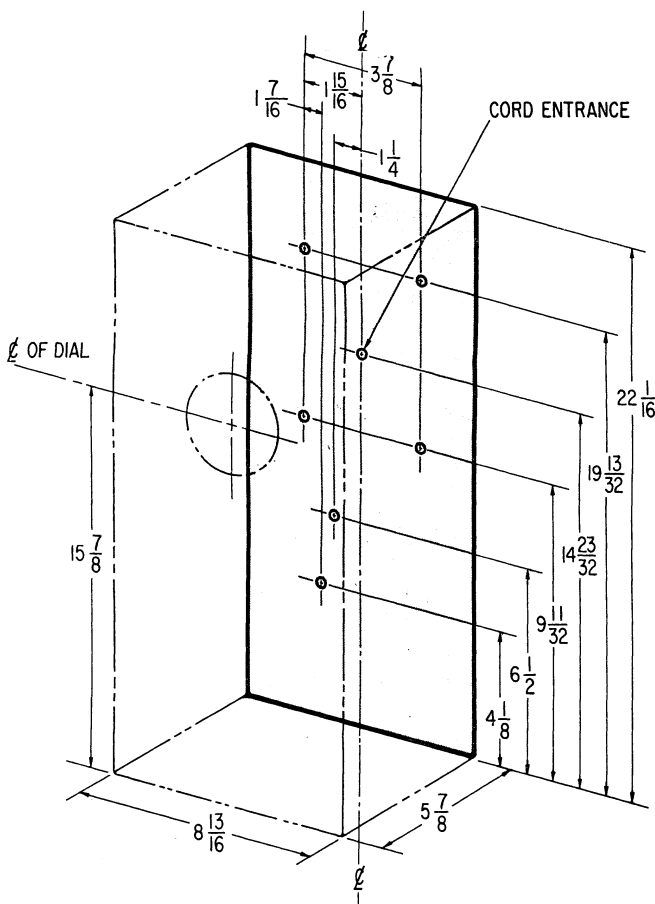


Figure 1

Semi-Postpay Service

Connect the line to the Coin Telephone as follows:

Tip (+) to terminal L2

Ring (-) to terminal L1 SPP

The two pin plug (P4A) in Figure 2B should occupy the two left-hand positions of the lower horizontal jack strip; the eight-pin (P4B) occupies the remaining positions as shown. Do not remove the four-pin plug (P3) at the left.

Remove the coin tone oscillator from its protective envelope and install as described under OSCILLATOR INSTALLATION in this booklet.

Postpay Service

Follow instructions for Semi-Postpay installation.

When the Coin Telephone is to be installed in a community dial office and all local calls are free, the two-pin plug (P4A) in Figure 2B should be removed from the jack strip and insulated with electrical tape.

Where the Coin Telephone is terminated directly to an operator trunk, remove the dial and replace it with a dial blank. At the terminal strip where the dial wires were removed, strap terminal marked "1" to terminal marked "2".

Five Cent Initial Rate

As shipped, the Coin Telephone is set for a ten cent (one dime or two nickels) initial rate. To change to a five cent initial rate, clip or unsolder the yellow lead from the four-pin plug just above the coin safe. (See Figure 3). Insulate and tie back the lead so it cannot interfere with the movement of any parts within the set.

Oscillator Installation

Remove the coin tone oscillator from its protective envelope and insert into the jack labeled OSCILLATOR in the left center portion of the main printed circuit board. The oscillator card must be inserted only after the completion of the line connections, and must be removed if any changes in these connections are required. A low resistance ground (even briefly) on the tip side of the line may damage the oscillator.

TESTING

Testing the set can be facilitated by the use of 553222 Handset. Plug the handset into the jack at the front of the inner chassis near the ringer.

Coin tones can be made audible in the receiver by short circuiting the two bottom pins of the four-pin plug, P3 (Figure 2B) using a jumper wire equipped with alligator clips at each end. Nickels cause a single burst of high-pitched tone, dimes two bursts of high-pitched tone, and quarters cause a burst of low-pitched tone followed immediately by a shorter burst of high-pitched tone.

Prepay

Nearly all set functions can be checked by calling the local test desk, from which refund or collect battery may be applied on request. Up to 25 nickels may be deposited to check the operation with the coin control loaded. Proper coin tones should be produced each time a coin is deposited regardless of the type of call or its status.

Request the test desk to make an incoming call to the Coin Telephone to check the ringer. Several attempts should also be made to make calls for less than the initial rate.

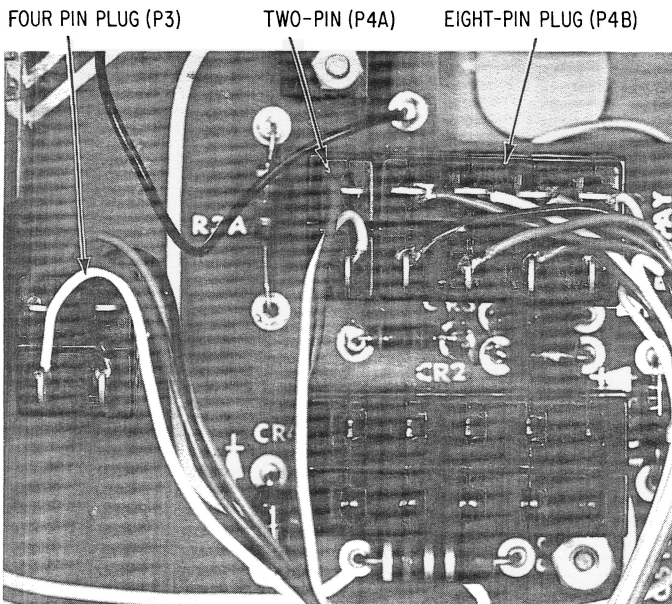


Figure 2 (a)

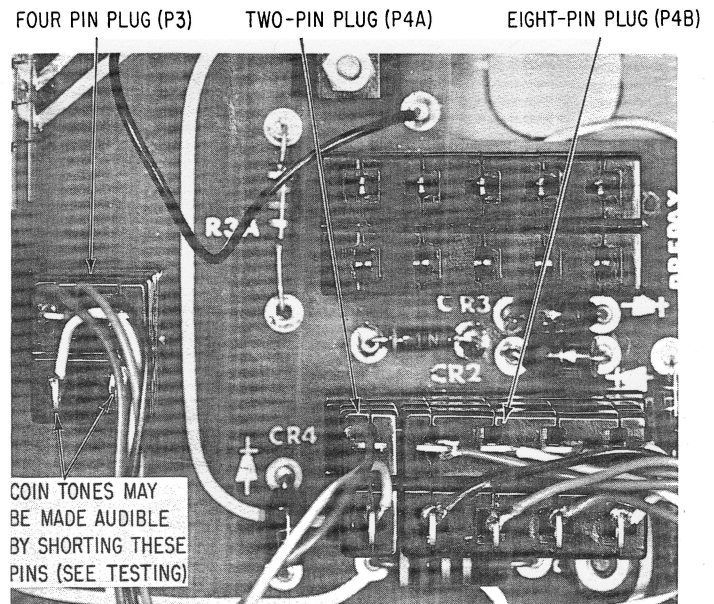


Figure 2 (b)

Local Prepay

In the local prepay mode, initial coin deposits will not activate the coin tone oscillator, because the initial line polarity is such that the oscillator does not work. When the called party answers, however, line reversal should occur, and thereafter any deposited coins will produce coin tones. Line polarity reversal will also cause the collect magnet to operate whenever a coin is in the hopper of the coin control unit, causing the coin to be collected immediately.

Abandon several calls or call a non-assigned number to check the refund mechanism.

Ask the local test desk to make an incoming call to the Coin Telephone.

Several attempts should also be made to make a call for less than the initial rate.

Semi-Postpay

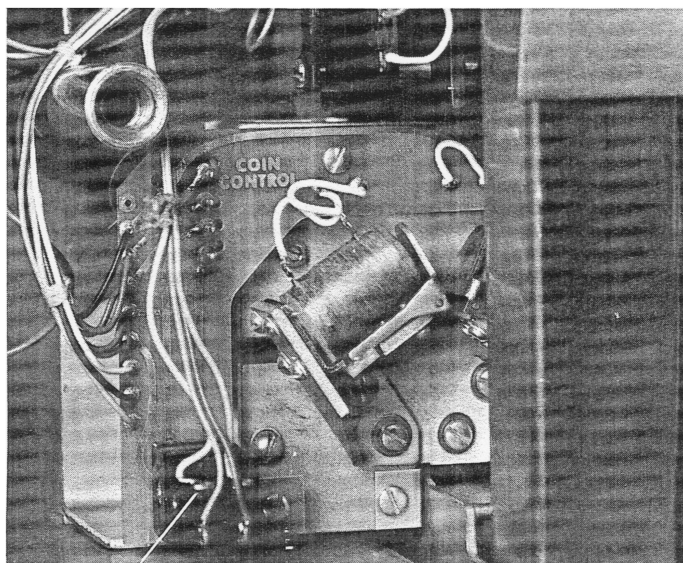
Coin tones may be checked by dialing an initial digit to remove dial tone, then depositing coins. Coins will be collected immediately.

Dial a local number and verify that the Coin Telephone is disabled (due to line polarity reversal), when the party answers, and remains so until the initial rate is deposited. Verify that coins are collected when the connection is terminated (and line polarity returns to normal).

Call the local test desk and request that a call be made to the Coin Telephone.

Postpay

Lift the handset and, in conjunction with the operator,



Disconnect yellow lead for 5 cents initial rate. (See CONNECTIONS)

Figure 3

test coin tones. Request the operator to make a call to the Coin Telephone.

Replacing Outer Housing

Remove the short or jumper wire, used to make coin tones audible, and disconnect the test leads.

Assemble the instruction card to the outer housing using the push-on fasteners supplied.

Replace the outer housing turning the lock clockwise to tighten clamping screw. DO NOT OVERTIGHTEN.

TROUBLE SHOOTING		
TROUBLE SYMPTOM	POSSIBLE CAUSE	REMEDY
No transmit or receive	Oscillator card not properly installed	Install oscillator card as described above
No coin tones	Line reversed	Reverse line leads
<u>Prepay</u> Fails to collect or refund Cannot release switchboard after first call	Poor ground or absence of ground on terminal G Line leads reversed	Connect suitable ground to terminal G Connect Tip (+) to L2, Ring (-) to L1 PRE
<u>Local Prepay</u> Fails to refund	a) Local prepay adapter not installed properly b) Poor ground or absence of ground on terminal G c) Line reversed	a) Install in accordance with instructions accompanying adapter b) Connect suitable ground to terminal G c) Connect Tip (+) to F, Ring (-) to L2
<u>Semi-Postpay</u> No transmit or receive	Line reversed	Connect Tip (+) to L2, Ring (-) to L1 SFP

MODEL 103 PAYSTATION WIRING DIAGRAM

NORTH ELECTRIC CO. GALION, OHIO, U.S.A.

NOTES

- 1- PLUG P-1 MATES WITH J-1, P-2 WITH J-2 ETC.
- 2- FOR FULL PREPAY CONNECT P-4A & 4B TO J-4P.
- 3- FOR SEMI-POSTPAY CONNECT P-4A & 4B TO J-4S.
- 4- NOT EQUIPPED ON NOS. 552573 THRU 552575.

