

SERVICE & INSTALLATION MANUAL

MODEL 1200-2

GTE CASE

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MODEL 1200-2 PAY TELEPHONE DESCRIPTION AND INSTALLATION

GENERAL

This document describes and provides operational information for the Model 1200-2 payphone, installation, field maintenance and test procedures are also included.

The Elcotel model 1200-2 coin telephone is a "smart" pay phone which provides normal prepay service using a standard business phone line with an RJ11C interface.

OPERATIONAL FEATURES

Local and Remote programming of all options and parameters affecting the operation of the payphone by means of the voice circuitry and tone keypad (Voice Telemetry) plus data telemetry to perform the same functions under control of a remote computer equipped with the Elcotel Payphone Network Manager software package.

The PCM-2 can be programmed to direct all Coin/Toll calls to OCC's (Other Common Carriers) and all 0+ calls to Operator Assisted Long Distance Service (OALDS) Switches.

Easy installation of plug-in Rating Module which contains site specific parameters and rate tables.

Increased resistance to vandalism due to metal push button touch calling unit (TCU), protective adapter plate, metal hook-switch tongue, and permanently bonded handset caps.

Increased serviceability due to accessibility and modularity of major component assemblies.

MECHANICAL FEATURES

All steel housing construction, except for the bright-work in the fascia of the unit, extra heavy steel vault door.

Tongue-and-groove construction for mating surfaces of the upper and lower housing, and a lower housing cash vault door. Protection of the cash vault door with hardened steel bars.

Foolproof latching mechanism and lock for the upper housing and cash vault door.

The telephone is equipped with metal hook-switch actuator, metal TCU push buttons to resist burning, and protective adapter plate to resist damage caused by striking the handset against the telephone housing.

ELECTRICAL FEATURES

The Payphone Control Module (PCM-2) is equipped with a Micro-processor to monitor and control all functions of the payphone, including handset, tone keypad, telco line, coin relay and coin detect.

Local programming by means of the touch-tone keypad and voice circuitry to monitor and select the various options and to set all operational parameters affecting the payphone.

Voice telemetry to enable the owner to monitor and adjust all options and operational parameters affecting the pay phone by means of a touch tone equipped phone from any remote location.

Optional clock/calendar to enable the unit to provide time of day discount where required, adjustable discount periods and rates.

Optional Bell 103 compatible modem to enable the owner to perform all monitor and control functions remotely under control of a Personal Computer equipped with the Elcotel Payphone Network Manager software package, including the ability to poll all payphones for status, receive calls from the payphones when alarm thresholds are crossed and to download a new set of variables to any remote payphone.

Optional alarm cable and switch assembly to sense when the vault or the upper housing are opened, and to bring one additional external alarm contact.

Sophisticated algorithms to enable the model 1200-2 to determine when the remote party has answered (call completion detection) and to prevent fraudulent calls.

High quality digitally recorded voice instructions to inform the customer of the cost of the call, and to report the status of the options, registers and variables which define the performance characteristics of the unit.

Site specific parameters stored in plug-in Rating Module, such as PBX access number, speed dialing numbers, coin free and emergency numbers, restricted numbers or exchanges, information numbers, and charges for all local and long distance calls.

External wall outlet mounted power module provides intrinsically safe voltage to operate the unit.

DESCRIPTION

The housing of the telephone is made of steel, it is 21 inches high, 7 5/8 inches wide, and 6 inches deep. The upper and lower housings are formed of deep-drawn steel and contain reinforcing members welded in place. Extra heavy gauge steel is used for the cash vault door that also uses reinforcing members. To reduce the possibility that an unauthorized person will gain access to the interior of the telephone, tongue-and-groove type construction is used at the mating surfaces of the upper and lower housings, and the lower housing cash vault door. The housings and door are protected further by hardened steel liners that retard attempts to drill into the housing at these points.

Retention of the upper housing to the lower housing is affected by a slide-bar latch that secures the two at six points and is actuated by a T-wrench. The T-wrench is a one-piece unit of hardened stamped steel. An opening at the upper right side of the upper housing permits entry of the tool to engage the latch, but the latter may be held in the closed position by a studded cam actuated by a cylinder lock of unique design located about midway up at the right side of the telephone, in the upper housing.

The cash vault door is secured in place by a similar four point latching mechanism that is engaged by inserting the T-wrench into an opening in the center of the door surface. In this case the latch is secured by a four-tumbler cylinder lock, located on the left side of the lower housing.

The pattern of mounting holes in the lower housing (and the relationship of the wire entry

opening to the mounting holes) is the same as used in other phones, this permits mounting in the same booths or other predrilled locations. An additional pattern of mounting holes behind the vault area is provided for easier access and may be used when mounting to a metal backboard. Unlike other coin telephones, however, the lower housing has no rear channel to permit top or bottom wire entry in surface wired installations. For this and other installation requirements, a metal backboard is available and can be ordered. Provision is made for use of four security studs in mounting. The coin return receptacle has a top hinged door at the right front of the lower housing. Returned coins enter the receptacle from a passage behind the door and collect just below the bottom of the door. The floor of the receptacle extends to the rear and upward to form a trough for holding coins. When the door is opened, coins are accessible to the customer while the passage by which coins enter the receptacle is blocked off. The rearward extension of the trough appears to be the passage from which coins enter, but it may be stuffed to no avail because the actual passage is protected from stuffing by the opened door.

The upper housing contains a dial housing to which are mounted the Touch Call Unit (TCU) switch lever and hook-switch, a 17-pin connector and cable assembly and a terminal board. Leads from the various components and the plug are interconnected at the terminal board. The upper housing makes electrical connections to the lower housing through these connectors and require manual insertion. This allows the upper housing to be removed without disabling the telephone. A stationary handset

hanger is mounted on the front of the upper housing. The hook-switch tongue is a two-part assembly that snaps together. The outside portion is made of chrome die cast material, and the hook-switch spring actuator cam is made of plastic. The hook-switch tongue is actuated by a lever that projects through an opening in the housing between the support points of the hanger. An armored handset cord is furnished as standard equipment and is arranged for entry on the left side of the housing to minimize tangling. The handset is equipped with a hearing-aid coupler coil.

The lower housing of the telephone consists of the following major modules: Rejector mechanism, Coin Chute Assembly, Chassis Assembly.

The Rejector mechanism is a sophisticated coin testing device for accepting a very high percentage of genuine coins and rejecting the majority of slugs encountered in the field. As coins enter the rejector, they are sorted into the three general size categories of a quarter, nickel or dime. Thereafter, coins are tested in their own individual channel. Each coin is first checked for proper diameter and weight. If it meets these requirements it is checked for a perforation (such as that in a washer) and is released down an inclined rail. As the coin rolls down the rail it is tested for proper thickness and then is guided past a permanent magnet. The magnet generates eddy currents within the coin if it is metallic and tends to retard its travel. If it is not metallic such as a plastic slug, there is no slowing of the slug as it passes the magnet. The material composition of the coin or slug determines the speed with which it leaves the inclined rail. If the coin travels

too rapidly or too slowly, it strikes certain deflectors that cause it to be diverted to the rejection outlet. In addition, the nickel is tested for hardness and elasticity to determine whether it will be accepted or rejected.

Most rejected coins are diverted directly into the reject chute assembly and drop into the coin return receptacle of the telephone. Ferrous slugs, oversized coins, and washers become trapped in the rejector but can be released by operation of the coin release lever. As this lever is operated, it causes a separation of the hinged sides of the lead-in chute and rejector. This allows several fingers to extend into the coin channels and dislodge trapped coins. At the same time, wiper blades sweep past the magnets to clear the coin channels, directing the trapped coins to the coin return receptacle.

The Coin Relay-Hopper and Coin Chute assembly located below the rejector mechanism is retained near the top by a tab that drops over an opening in the reinforcing plate at the rear of the lower housing. The collect opening of the hopper extends through the floor above the coin box and is held in place by a movable rail that is locked in place with three screws.

Genuine coins leaving the rejector mechanism have been sorted into three channels. As a coin travels through the succeeding chute section, it operates the trigger switch associated with the coin denomination. The three-trigger switches are connected to a four-pin connector terminated cable which in turn is connected to the PCM-2 Assembly for processing by the microprocessor. After passing through the coin chute, coins fall

into the Relay-Hopper (escrow box) and come to rest on a double trapdoor.

The Relay-Hopper and coin chute assembly serves to dispose of the coins held suspended on the trapdoors of the hopper. A wider hopper design accepts coins from an off-center entry point and retains them in random fashion. The relay also features a polarized selector mechanism. During operation of the relay, the selector card is influenced by the polarity of the voltage applied to the relay. This causes the card to tilt as it moves downward and opens the proper trapdoor to collect or refund coins. Application of positive voltage initiates the collect function, while a negative voltage initiates the reject function. Release of the relay returns the trapdoor to the closed position in readiness for another deposit. This assembly has a three-pin connector ended cable which is connected to the PCM-2 Assembly where the microprocessor controls the application and polarity of the voltage applied to the relay coil.

The chassis assembly is mounted to the left side of the lower housing and is retained by a tab and one captive screw. The PCM-2 printed card assembly is mounted to the chassis. Electrical interconnections to other assemblies is made by connectors mounted on this board. A 17-pin connector provides access to the keyboard, handset and hook-switch. A 16-pin connector provides access to the cost/time display module. A 4-pin connector provides connection to the coin chute trigger switches. A 3-pin connector provides connection to the coin relay and another 3-pin connector provides connection to the terminal block mounted at the base of the lower housing where

operating power and ground are terminated. An RJ11C jack provides connection to the telco line.

MODEL 1200-2 OPERATION

Power Supply: The Model 1200-2 is powered by an externally mounted wall plug-in transformer rated at 16 Volts, 1 Ampere. The transformer is provided with four screw terminals, three are the center tapped secondary while the fourth is connected to the AC ground terminal. The ground terminal must be connected to the center tap with a jumper. The transformer may be located up to 50 feet away from the phone if No. 18 or larger gauge wire is used. The three conductor power cable must be routed to the phone, fed through the back of the unit and terminated in the terminal block located at the bottom of the lower housing by means of 1/4 inch "quick disconnects," the center terminal of the block is directly connected to the metal enclosure thereby effectively grounding the cabinet. A three-terminal connector ended cable is supplied with the cabinet which in turn is connected to the leftmost three-pin terminal in the lower end of the PCM-2.

Radio Interference

In some locations near radio broadcasting antennas, if a 50-foot power line is used, it may be necessary to bring a special ground wire from a nearby water pipe to insure that the radio signal does not interfere with the call completion detect circuit. This special ground may be connected directly to the center (ground) terminal in the lower housing, along with the center tap from the power transformer.

Telco Interface

The telephone line must be terminated with an RJ11C plug, routed through one of the entry holes in the back of the unit and then connected to the RJ11C jack mounted on the PCM-2.

Telco Loop Supervision

The Model 1200-2 monitors the telephone line for reverse battery supervision, Incoming Ring, Central Office (C.O.) Dial Tone, C.O. Busy Tone, C.O. Ring-Back Tone, and Special Information Tones.

Coin Detect

The Model 1200-2 constantly monitors the coin detect mechanism and keeps track of amounts deposited during any given call.

Coin Relay

The Model 1200-2 supplies the voltage necessary to operate the Coin Relay. The polarity of the voltage applied determines if the coinage is to be returned or collected.

Handset

The Model 1200-2 monitors the hook switch to determine when a customer initiates or terminates a call. When the customer goes off-hook, the Model 1200-2 generates dial tone into the receiver, turns on the keypad and turns off the microphone.

Call Initiation

The same procedure used to make calls in standard phones is used with the model 1200-2. Upon hearing dial tone, the customer

uses the keypad to enter the desired number. Dial tone is removed immediately after the first digit is dialed. The Model 1200-2 analyzes the number dialed, determines the initial period charge and uses the voice circuit to inform the customer of the cost and time purchased.

Dialing

When the customer deposits the amount required for the call, the Model 1200-2 turns off the receiver and keypad and goes off-hook towards the telco line and monitors for dial tone. When dial tone is detected, and if the Tone Dial option is on, the Model 1200-2 starts tone dialing the number, else, it will pulse dial the number. When the number has been dialed, the receiver will be turned on and if the OCC switch option is on, the keypad will be turned on to allow the customer to use a locally accessed Long Distance Service. If no digits are dialed after call completion, the keypad will be turned off after a brief time.

Call Completion Detection

The Model 1200-2 is equipped with three methods of detecting call completion to enable it to determine the call completion.

1. VOICE DETECTION - A sophisticated Voice Detect Algorithm is used to determine the end of ring-back and the beginning of conversation. Because this method of call completion detection is extremely sensitive to the content of the signals in the phone line, the microphone in the handset is turned off until call completion is established.
2. REVERSE BATTERY SUPERVISION - In those locations where the telephone company extends reverse battery supervision to the local loops, the Model 1200-2 will detect it and use that as the call

completion event.

3. KEY PAD - In the event that a customer dials a Long Distance Service (LDS), when LDS answers with its dial tone, the customer may start dialing immediately after hearing the LDS dial tone, and the call is deemed to be completed at that moment.

Call Termination

The call is terminated when the customer goes back on-hook, or if the time purchased runs out, at this point, the Model 1200-2 collects the coinage in the escrow box. Calls may also be aborted or terminated if no answer or busy answer in which case the Model 1200-2 returns the coinage.

Call Pricing

The Model 1200-2 makes use of rating tables stored in the Rating Module to obtain proper rates for the initial period and for subsequent periods. In addition, the 1200-2 allows access to all rate tables to enable the owner to add or change rates, exchanges and area codes.

Rating Module

The Rating Module is a small (1.75 x 1.8 x .6) module which plugs into a 26-pin connector located in the upper right area of the PCM-2. It is intended to be owner installable. The rating module contains all known Area Codes, all known Intra Lata/Inter Lata exchanges and all known special NPAs, Exchanges, and rates necessary to accurately determine the cost of a call from where the phone is installed. The Rating Module contains site specific parameters such as:

- o All default values for options and registers
- o Coin Free and Emergency Numbers

- o Restricted Numbers/Exchanges
- o Information Numbers
- o PBX Access Code Number

Voice Instruction Set

The Model 1200-2 is equipped with a high quality digitally recorded voice instruction set stored in PROM and played back through D/A circuitry into the receiver. This instruction set contains all normally used sentences used by the telco operator to request payment for a call and to inform the customer of the time purchased in minutes when applicable. In addition, when 30 seconds remain on the call and again when 10 seconds remain on the call, the Model 1200-2 will request additional coinage to be deposited for a given time period. Only the customer hears the messages.

Alarm Inputs

The Model 1200-2 is equipped with four alarm inputs which can be connected to three external contacts with a common return. These contacts can be connected to the 1200-2 through a five-contact connector and cable (suggested connector: Molex crimp terminal housing No. 09-50-7051 and standard KK crimp terminals No. 08-50-0106). This cable is supplied when the alarm switch option is ordered. The alarm switch option is used to monitor the upper housing access, the handset (in case someone pulls it off the phone), the cash vault and one spare alarm which can be connected to any external contact such as a vending machine or an intruder detection device.

Variables

The Model 1200-2 is equipped with battery-backed memory used to store all rating data from the Rating Module, Options, Totals,

phone numbers, etc. These variables and the clock/calendar can be accessed locally through the keypad or remotely through either DTMF signalling from a remote phone, or with a P.C. equipped with the Elcotel Payphone Network Manager software package. These variables are identified by three-digit numbers grouped as follows:

120-199	Options
220-299	Registers
320-399	Auto Dialer/Free Numbers
420-479	Local Band Charges
480-499	Local Band Exceptions
520-579	Intra Lata Band Charges
580-599	Intra Lata Band Exceptions
620-679	Inter Lata Band Charges
680-699	Inter Lata Band Exceptions
720-779	Special NPA Band Charges
780-799	Special NPA List
820-899	Inter State Band Charges
920-959	Alarms
960-999	Maintenance

INSTALLATION

This equipment complies with Part 68 of the FCC Rules. The label affixed to this equipment contains, among other information, the FCC Registration Number and Ringer Equivalence Number (REN) for this equipment. The telephone company must be given notification prior to connection of this device to comply with state tariff requirements (in some states, prior approval of the State Public Utility or Public Service Commission may be required). Connection of unregistered customer-owned coin phones requires the use of VP couplers.

The REN is useful to determine the quantity of devices you may connect to your telephone line and still have all of those devices ring when your telephone number is called. In most, but not all

areas, the sum of the REN's of all devices connected to one line should not exceed five (5.0). To be certain of the number of devices you may connect to your line, as determined by the REN, you should contact your local telephone company to determine the maximum REN for your calling area.

If your telephone equipment causes harm to the telephone network, the Telephone Company may discontinue your service temporarily. If possible, they will notify you in advance. But if advance notice is not practical you will be notified as soon as possible. You will be informed of your right to file a complaint with the FCC.

Your telephone company may make changes in its facilities, equipment, operations or procedures that could affect the proper functioning of your equipment. If they do, you will be notified in advance to give you an opportunity to maintain uninterrupted telephone service.

If you have trouble with this equipment, please contact us at the address below for information on obtaining service or repairs. The telephone company may ask that you disconnect this equipment from the network until the problem has been corrected or until you are sure that the equipment is not malfunctioning.

The following jacks must be ordered from the telephone company in order to interconnect this product with the public communication network: 17-Q Interface for an RJ11 hook-up.

This equipment may not be used on coin service lines provided by the telephone company. Connections to party lines are subject to state tariffs. Contact your local

telephone company if you plan to use this equipment on party lines.

Refer to the field maintenance instructions for troubleshooting steps which you may make yourself in the event of equipment problems.

This product is not field repairable. Units in need of service must be returned to us at the address below. A return authorization number must be obtained from us before each lot is shipped.

This product is hearing-aid compatible (HAC) per Section 68.316, FCC Rules and Regulations.

Telephone companies generally will require registration numbers for customer-provided coin telephones or COCOTS (registration class CX), Protective Couplers (registration classes HP, WP, and VP), Data Equipment (registration classes DM, DP, DT, and MD) and systems. Signal power and wiring affidavits may also be required.

This information will be used to assure that the customer orders the correct services, facilities, and jacks; and to assure network protection and tariff compliance.

The telephone is furnished equipped for prepay operation and coin free emergency calling. The shipping container will contain the completely assembled telephone, power transformer, rating module, documentation and keys. The PCM-2 assembly must be removed to allow access to one mounting bolt in the back of the unit during installation.

Warning: This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance

with the instructions manual, may cause interference to radio communications. It has been tested and found to comply with the limits for a Class A computing device pursuant to Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference in which case the user at his own expense will be required to take whatever measures may be required to correct the interference.

Site Preparation

Before mounting the phone, the upper housing must be removed from the lower housing by performing the following steps:

Insert key into the upper housing lock and rotate it one-fourth turn in counterclockwise.

Insert the T-wrench into the opening in the upper housing and turn it on eight turn clockwise.

Grasp both sides of the upper housing and slide it forward. At the same time that the upper housing is being removed, reach around it and disconnect the jack-ended cables that connect the upper housing to the PCM-2. Set the upper housing aside. Remove the PCM-2 Assembly by disconnecting the connector ended cables from the Coin Chute, Coin Relay, and Power terminal. Loosen the captive screw located at the bottom of the assembly and pull the bottom of the assembly out to clear the mounting bolt. Lift the assembly to disengage the tab in the upper part of the chassis, and remove the assembly. Set the PCM-2 Assembly aside.

When installing the telephone, a perfectly vertical mounting surface is very desirable. A tilt greater than 1-1/2 degrees in any direction will cause a malfunction of the coin rejector mechanism. A vertical surface may be determined by proceeding as follows.

Place a spirit level vertically against the mounting surface with the top end of the level at required height of the telephone.

Move the top or bottom end of the level away from the mounting surface as required to obtain a vertical reading. When a vertical reading is obtained, the end of the level opposite the point of contact should be no further than 5/8" for a 24" level, or 15/16" for a 36" level.

Ensure that a vertical position is obtained in both directions.

If mounting surface deviation from a vertical plan exceeds 1-1/2 degrees, level the booth or other mounting surface to bring the telephone to a perfectly vertical position.

Backboard

The mounting surface for the backboard must be strong enough to support the backboard and telephone. In addition, the surface must be flat and devoid of any peaks or valleys which may create gaps large enough to allow the backboard to be pried loose. The backboard is used where a pre-drilled mounting surface is not available.

Mounting height of the backboard, as measured from the floor to the top of the backboard is as follows:

Without seat, 63 inches
With a seat, 52 inches

If the installation site is in an environment or the coin telephone will be accessed by the wheel-chaired physically handicapped, 54 inches. If a shelf is installed, the shelf must be 30 inches from the floor. A coin telephone in such a location must never be installed in a corner and must not have any obstacles within 3 feet of its front or sides.

Mounting

There are 10 mounting holes (5 on each side) in the Backboard. The mounting screws used must be of the proper size and type for the mounting surface. Guidance for mounting the telephone are as follows:

If the wiring is run on the surface, position the wires so that they will lay flat in the channels and grooves of the backboard and emerge from the backboard entrance hole. If the wires are run through the wall, ensure that the backboard entrance hole aligns with the final position of the wires.

Mount the backboard with the mounting screws when it is level in all directions.

Install and tighten the four security studs in the threaded holes on the back of the telephone.

Align the telephone with the backboard and run the wires from the backboard into the telephone's wire entrance hole. Position the telephone's security studs over the backboard's key slots. Push the telephone back until the security studs engage the key slots. Allow the telephone to slide in place.

Two screws are mounted on the left side, one directly below the PCM-2 assembly, the other directly underneath the PCM-2 assembly. Install and tighten these screws. Mount the PCM-2 Assembly and plug in the connector terminated cables from the Coin Chute, Coin Relay, and power block. One screw mounts behind the rejector mechanism. For better access, disconnect the rejector chute at the bottom of the rejector and tilt the chute forward. Loosen the rejector mounting screw at the top of the rejector mounting plate. Tilt the top of the rejector to the right to expose the mounting hole. (The rejector may be removed at this point without removing its top mounting screw by lifting up and out.) Install and tighten the mounting screw and reassemble the eject mechanism. If screws are to be installed behind the anti-stuffing device, loosen the anti-stuffing device screw and remove the anti-stuffing device.

Connect the power wires to the terminal block at the base of the lower housing. The telephone ground is connected for direct grounding to the telephone set housing; no additional ground wire strap assembly is required. Be sure and connect the AC to the outside terminals and the ground to the middle terminal using 1/4 inch "quick disconnects."

Connect the RJ11C plug terminated telephone cable to the jack provided in the PCM-2 Assembly.

Local Access

Local access to the variables stored in the 1200-2 will be permitted only after the phone is off-hook and the owner bypass code #XXX (pound sign plus three digits) has been entered and recognized.

High Security

More stringent security measures can be enabled by turning on the "high security" option (135). This will deny local access unless the upper housing is removed after entering the owner bypass code and alarm number 1 is temporarily activated (option 131 must be on also) by momentarily shorting pins 1 and 2 of J105 with a coin, screw driver or other small metal tool. If the unit is equipped with the optional alarm switch assembly to sense the opening of the upper housing, all that is needed is to unlock the upper housing, pull the upper housing assembly about 1/2 inch, then push it back.

OPTIONS REGISTERS AND PARAMETERS

All options registers and parameters used in the operation of the 1200-2 can be monitored, changed and additions made either locally or remotely by use of the keypad in the payphone, or remotely by means of a touch tone phone. An optional 300 baud modem can also be used to perform these functions under control of a P.C. equipped with the Elcotel Payphone Network Manager software package.

Dialing For Local Access

When digits are entered, the 1200-2 will respond in the same manner as when doing a dialed digit sequence analysis of a normal call to discourage intruders as follows:

Digit Timer

The unit will return dial tone if no digits are entered for ten seconds (the ten-second timer will reset after each entry).

Wrong Code Entered

If the wrong code is entered, the 1200-2 will return dial tone

after ten seconds if no other digits are dialed. If additional digits are dialed, the unit will analyze the digits as if it were a legitimate call attempt and return dial tone when it determines that the sequence does not match any predetermined valid sequence. The unit will look for the owner bypass code sequence each time the "#" is entered, but will apply the same rules as above after each "#" entry.

Excess Digits

The unit will return "busy" if more than ten digits are entered after the "#" is entered.

Correct Sequence

When the correct code sequence is entered, starting with the "#", the ten-second timer will start and will be reset with each subsequent entry. The 1200-2 will not acknowledge proper entry of the owner bypass code to discourage intruders. After the correct owner bypass code sequence has been recognized, local access is enabled. If the "high security" option is enabled, the ten-second timer will be disabled and the unit will wait until alarm 4 is on momentarily to enable the local access function. The ten-second timer will not be activated until the first digit of the variable is entered.

Local Voice Response

If a valid three-digit number is entered three seconds after the proper owner bypass code has been entered, the unit will use the voice response circuitry to send the following message: The three-digit number, pause, the contents of the variable defined by the three-digit number.

Wrong Variable Entered

If an invalid three-digit variable is received, the unit will deliver the following message: "Please Dial Again, Thank You," three seconds after the last digit dialed.

Excess Digits in Variable

If four or more digits are received, the unit will report the contents of the variable then stop, and return dial tone in ten seconds.

Local Access Termination

Local access can be terminated by putting the phone back on-hook.

Voice Remote Access

Voice Remote Access or Voice Telemetry is enabled by turning on Option 129. The payphone can be called from any remote location, and DTMF signalling (touch-tone) must be used to make inquiries, changes and additions.

Response to Incoming Call

If the phone has been optioned to receive incoming calls (Option 122), the payphone will answer on the fifth ring to allow anyone to answer the phone. If Option 122 is off, the phone will go off-hook on the first ring, no voice response will be given to discourage intruders. If no DTMF entries are received within 20 seconds, the payphone will hang up.

Owner Bypass Code

The remote caller must enter the correct owner bypass code (#XXX pound sign plus three digits) wait three seconds then enter the three-digit variable desired. If the caller gets no response within three seconds, it can be assumed that he has entered the wrong code, and he must start all over again with the bypass code.

When the correct code is received, the payphone will give the appropriate voice response to any three-digit variable dialed as described in Local Access above.

If no inquiries are made for 20 seconds, the payphone will go on-hook and terminate the call.

Modem Remote Access

When the payphone is equipped with the optional modem (300 baud, Bell 103 compatible) and if the Modem Telemetry option is ON (option 130), the unit will respond to an incoming call in the same manner as in voice telemetry, except that when the payphone answers it will turn on its carrier (loud high frequency pitch). When the Payphone Network Manager detects this carrier, it transmits its owner bypass code to the payphone.

When the payphone detects the correct owner bypass code, it automatically transmits a status message in ASCII. A sample of the format and a sample of a typical message follow:

```
cr lf bell NNNN MM/dd HH:mm $DDD.cc LLL SSS TTT UUU XXXX YZ cr lf bell
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3942 07/10 14:27 $151.75 348 023 012 018 0000 01
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The actual ASCII characters transmitted and their meaning is as follows: CR=Carriage Return, LF=Line Feed, Bell, NNNN (four-digit station Identification code), MM/dd (Date in month/day format where M=month and d=day), SP (space), HH:mm (Time in hour/minute format where H=hour and m=minute), SP, SDDD.cc (Cashbox total since last service call where D=dollars and c=cents), SP, LLL (three digits for number of local calls since the last service call), SP, SSS (three-digit number for number of long distance calls since the last service call), SP, TTT (three digits for number of O-Plus calls since the last service call), UUU (three-digit number for the number of miscellaneous calls since the last service call), SP, XXXX (four digits for the status of the active alarm inputs, 0=off or disabled and 1=on), SP, YZ (Y represents the status of the battery backed RAM: 0=normal, 1=Ram has default values from the Rating module, all changes and additions are missing and must be reentered. Z represents the status of the cashbox: 0=normal, 1=80% full trigger level has been exceeded, 2=95% full trigger level has been exceeded), Carriage Return, Line Feed, Bell.

The above format was selected so that if a Payphone Network Manager is not available, a simple 300 baud auto answer modem and a printer can be used at the home station to monitor incoming alarm reports from the payphones in the field. Note that in this configuration the home cannot call the payphones. Sample 2 above shows that payphone 3942 called home to report that the cashbox crossed the \$150.00 threshold.

Variables

The following is a list of the three-digit variables stored by the 1200-2 grouped by function. All default values are shown in parenthesis at the end of the variable description when applicable.

OPTIONS GROUP

Options may be enabled or disabled by means of the "*" push button in the tone dialing keypad. The voice circuitry will report enabled as "on" and disabled as "off," depressing the "*" key once during the voice report flips the status from on to off or from off to on, and the voice reports the change within 3 seconds. Depressing the "*" twice causes the voice to report without delay. Several options require a value to be set in the register section (2.5.2) of the variables, for example: If operator only calls are enabled, register 248 must contain a 0 for no charge or an amount in cents if the call is to be charged.

- 120 OPERATOR ONLY CALLS (set value in 248 if on). (ON)
- 121 OPERATOR ASSISTED CALLS (set value in 249 if on). (ON)
- 122 INCOMING CALLS. (ON)
- 123 ACCESS TO OCC THROUGH LOCAL CALL. Keeps keypad alive so that the customer can use his own account number with an OCC. See note 1. (ON)
- 124 OPERATION THROUGH PBX (set digit in 229 if on). (OFF)
- 125 PULSE DIALING. (OFF)
- 126 REVERSE BATTERY SUPERVISION. (OFF)
- 127 KEYPAD ON AFTER DIALING FOR FIXED PERIOD (for certain pocket pagers). See note 1. (ON)
- 128 PHONE EQUIPPED WITH CREDIT CARD READER OPTION. (OFF)
- 129 VOICE TELEMETRY. (ON)
- 130 MODEM TELEMETRY. (OFF)
- 131 ALARM 1. (OFF)
- 132 ALARM 2. (OFF)
- 133 ALARM 3. (OFF)
- 134 ALARM 4. (OFF)
- 135 HIGH SECURITY. (OFF)
- 136 TIME OF DAY DISCOUNT (set values in registers 234-238). (OFF)
- 137 DISABLE UNLISTED NXX TIMER. (OFF)
- 138 0-LDS, Operator only calls routed through LDS switch. (OFF)
- 139 0+LDS, Operator assisted calls routed through LDS switch. (OFF)

- 140 LDS LOCAL, LDS switch is located in local calling area of payphone. (OFF)
- 141 DELETE FIRST DIGIT, Deletes leading "0" in the destination number in OALDS applications. (OFF)
- 142 DIAL TONE AFTER AUTH. CODE, the payphone will look for dial tone after auth. code has been sent in OALDS applications. (OFF)
- 143 EQUAL ACCESS, All coin/toll calls routed through OCC (set registers 260 and 261 if on). (OFF)
- 144 DIAL TONE AFTER OALDS ANSWERS, The payphone will look for dial tone after the OALDS answers. (OFF)
- 145 KEYPAD ON AFTER DIALING. See note 1. (OFF)
- 146 INSERT LEADING "1", If a 10-digit number is dialed, the payphone will insert a 1 before the digit string. (OFF)

NOTE 1: Any time the keypad is left on after dialing, you are exposed to fraudulent "chain dialing" in location where the CO returns dial tone when the called party hangs-up.

REGISTERS GROUP

The registers contain values ranging from one to eleven digits, Registers 220 to 225 can only be monitored, all other registers can both be monitored and changed. Registers 221 to 225 can all be reset through maintenance code 962. It is good procedure to have the maintenance man reset these registers whenever the cashbox is serviced. When the content of a register is changed, the "*" button in the keypad must be depressed at the beginning and at the end of the entry. For example:

The "owner bypass code" must be changed to 345. Enter 230*345*.

- 220 CASH VAULT TOTALIZER. Amount collected by the payphone from day of shipment. Non resettable.
- 221 CASH VAULT TOTAL. Amount collected since last service call.
- 222 LOCAL CALLS. Total number of local calls since the last service call.
- 223 LONG DISTANCE CALLS. Total number of long distance calls (does not include 800 or 900 calls) since the last service call.
- 224 0-PLUS CALLS. Total number of Operator assisted calls since the last service call.
- 225 TOTAL NUMBER OF CALLS. The sum total of 222 through 224 since the last service call.

- 226 VOICE FILTER 1. Integration factor for the leading edge of the voice filter, 0=minimum, 3=maximum. (0)
- 227 VOICE FILTER 2. Integration factor for the trailing edge of the voice filter, 0=minimum, 3=maximum. (0)
- 228 FIRST RING DETECT. Integration factor for the leading edge of the voice filter when looking for the first ringback, 0=minimum, 3=maximum. (0)
- 229 PBX ACCESS CODE. Single digit required to access "outside line." (9)
- 230 OWNER BYPASS CODE. Three-digit number. (999)
- 231 LDS DELAY. Single-digit number used to set the time in seconds for the delay between the phone ID and the Destination number in LDS applications. (0)
- 232 HOLD OFF. Two-digit number used to set the time in seconds after call completion detection at which the call is considered completed. (0)
- 233 CASH VAULT TRIGGER LEVEL. Amount in dollars at which the phone will initiate a call home, three digits. (150)
- 234 START PREMIUM PERIOD. Hours and minutes in 24-hour format (HH:mm). All four digits must be entered. (0800)
- 235 START FIRST DISCOUNT PERIOD. Hours and minutes in 24-hour format (HH:mm). All four digits must be entered. (1700)
- 236 START SECOND DISCOUNT PERIOD. Hours and minutes in 24-hour format (HH:mm). All four digits must be entered. (2300)
- 237 FIRST DISCOUNT. Amount of first discount in percent. When applicable, it is usually 40 percent. (40)
- 238 SECOND DISCOUNT. Amount of second discount in percent. When applicable, it is usually 60 percent. (60)
- 239 DAY OF WEEK. Single-digit number, Sunday=1, Monday=2, etc.
- 240 READ/SET CLOCK. Hours and minutes in 24-hour format (HH:mm). All four digits must be entered. (eg. 1445 for 2:45 p.m.)
- 241 READ/SET CALENDAR. Month and Day (MM/dd). All four digits must be entered. (eg. 0620 for June 20)
- 242 READ/SET YEAR. Two-digit number. (eg. 86 for 1986)
- 243 HOME PRIMARY NUMBER. Phone number for Home, up to 11 digits. (0)
- 244 HOME SECONDARY NUMBER. Alternate phone number for Home, up to 11 digits. (0)

- 245 STATION ID NUMBER. Four-digit number assigned to this specific phone/location. (0000)
- 246 800 CHARGE. Three-digit number for amount in cents. (0)
- 247 900 CHARGE. Three-digit number for amount in cents. (50)
- 248 OPERATOR ONLY CHARGE. Three-digit number for amount in cents. (0)
- 249 0-PLUS CHARGE. Three-digit number for amount in cents. (0)
- 250 LOCAL INFORMATION CHARGE. Three-digit number for amount in cents. (0)
- 251 INTRA NPA INFORMATION CHARGE (1+555-1212). Three-digit number for amount in cents. (50)
- 252 INTER NPA INFORMATION CHARGE (1+NPA-555-1212). Three-digit number for amount in cents. (50)
- 253 LOCAL INFORMATION NUMBER. Up to eleven-digit number. (411)
- 254 INTRA LATA SURCHARGE. Three-digit number for amount in cents.
- 255 INTER LATA SURCHARGE. Three-digit number for amount in cents.
- 256 SPECIAL NPA SURCHARGE.
- 257 INTERSTATE SURCHARGE.
- 258 ACCESS ATTEMPTS. Number of attempts at accessing the unit since the last service call. Two digits, resettable through 962.
- 259 MISCELLANEOUS CALLS. Total number of miscellaneous calls (800, 900, free calls, etc.) since the last service call.
- 260 OCC ACCESS NUMBER, up to 12 digits (10XXX, 950-XXXX etc.). (0)
- 261 OCC AUTHORIZATION CODE, up to 11 digits. (0)
- 262 0ALDS-SWITCH PHONE NUMBER, up to 11 digits. (0)
- 263 0+ID, Identification number for 0+ calls, up to 12 digits. (0)
- 264 DESTINATION NUMBER TERMINATOR. Up to 11-digit number to be added to the destination number when required.
- 265 CREDIT CARD ACCESS NUMBER. Phone number required to access the CCC call processor, up to 11 digits. (0)
- 266 CCC PAYPHONE ID. Identification number associated with the Credit Card reader equipped payphone owner. Up to 11 digits. (0)

- 267 DELAY RINGBACK DETECT. Number of seconds after last digit dialed before the payphone looks for ringback tones, can be set from 0 to 9. (0)
- 268 VOICE MAILBOX PHONE NO., up to 11 digits, 0 disables the feature. (0)
- 269 COIN OPERATED OALDS PHONE NO., up to 11 digits, 0 disables the feature. (0)
- 270 976 CHARGE, three-digit number for amount in cents. Access to this exchange is restricted when charge is 9.95. (995)
- 271 NUMBER OF TIMES "NOT A BILLABLE NUMBER" MESSAGE is delivered. One-digit number. (0)
- 272 NUMBER OF TIMES PHONE WILL RING BEFORE TELEMETRY ANSWERS, one-digit number. (5)

AUTOMATIC DIALER GROUP

The owner of the payphone must provide a directory of auto dialed and free numbers so that the customer can take advantage of this feature. The list must contain the name of the party to be dialed automatically followed by a three-digit number between #20 and #79. For example:

Acme Cab Co. (\$.65 charge).....#25

Up to fifty phone numbers may be stored in the 1200-2 automatic dialer. Each number can be selected to charge normally, or to be free of charge. To enter a new number (or to change an old one), select the variable number, then enter a "*" before the phone number. If the number is to be charged normally, then enter a "#" after the last digit. If the number is to be dialed free of charge, enter a "*" after the last digit. Note that the Auto dialer number the customer uses corresponds to the two least significant digits of the Variable where they are stored.

Example 1: The number 1-756-4583 is to be accessed through auto dial #25, the call is to be charged normally: Enter 325*17564583#

Example 2: The number 345-2746 is to be accessed through auto dial #20, the call is to be free of charge: Enter 320*3452746*

Example 3: The number stored in auto dial #27 is to be deleted: Enter 327*0*

320 FIRST PHONE NUMBER IN AUTOMATIC DIALER. Up to 11 digits (0)

369 LAST PHONE NUMBER IN AUTOMATIC DIALER. Up to 11 digits. (0)

LOCAL BAND CHARGES GROUP

The model 1200-2 provides up to fifteen "bands" for pricing local calls, each band used contains the Initial Rate (IR), Initial Period (IP), Subsequent Rate (SR) and Subsequent Period (SP). Rates are stored in cents (three digits) and period is stored in minutes, 0=unlimited time.

One or more of these bands will contain local charge data as determined by the rating module installed. Before adding new information, be sure you are storing it into an empty band. Use the following chart as a convenient way to keep track of the rates and periods.

Note: Local Rates are not discounted.

BAND 1
420 IR ___ ___ ___
421 IP ___ ___ ___
422 SR ___ ___ ___
423 SP ___ ___ ___

BAND 2
424 IR ___ ___ ___
425 IP ___ ___ ___
426 SR ___ ___ ___
427 SP ___ ___ ___

BAND 3
428 IR ___ ___ ___
429 IP ___ ___ ___
430 SR ___ ___ ___
431 SP ___ ___ ___

BAND 4
432 IR ___ ___ ___
433 IP ___ ___ ___
434 SR ___ ___ ___
435 SP ___ ___ ___

BAND 5
436 IR ___ ___ ___
437 IP ___ ___ ___
438 SR ___ ___ ___
439 SP ___ ___ ___

BAND 6
440 IR ___ ___ ___
441 IP ___ ___ ___
442 SR ___ ___ ___
443 SP ___ ___ ___

BAND 7
444 IR ___ ___ ___
445 IP ___ ___ ___
446 SR ___ ___ ___
447 SP ___ ___ ___

BAND 8
448 IR ___ ___ ___
449 IP ___ ___ ___
450 SR ___ ___ ___
451 SP ___ ___ ___

BAND 9
452 IR ___ ___ ___
453 IP ___ ___ ___
454 SR ___ ___ ___
455 SP ___ ___ ___

BAND 10
456 IR ___ ___ ___
457 IP ___ ___ ___
458 SR ___ ___ ___
459 SP ___ ___ ___

BAND 11
460 IR ___ ___ ___
461 IP ___ ___ ___
462 SR ___ ___ ___
463 SP ___ ___ ___

BAND 12
464 IR ___ ___ ___
465 IP ___ ___ ___
466 SR ___ ___ ___
467 SP ___ ___ ___

BAND 13
468 IR ___ ___ ___
469 IP ___ ___ ___
470 SR ___ ___ ___
471 SP ___ ___ ___

BAND 14
472 IR ___ ___ ___
473 IP ___ ___ ___
474 SR ___ ___ ___
475 SP ___ ___ ___

BAND 15
476 IR ___ ___ ___
477 IP ___ ___ ___
478 SR ___ ___ ___
479 SP ___ ___ ___

LOCAL BAND EXCEPTIONS GROUP

All known local exchanges and rates associated with the exchange where the payphone is located are stored in the rating module at the time of manufacture however, new exchanges are created all the time, and the rates associated with some exchanges may change in time. In addition, it is possible to restrict a whole exchange.

To enter a new exchange, or to correct an already existing one, enter a "*", three digits for the exchange, two digits for the local band number and a "*". To restrict an exchange, enter a 00 in place of the band number. The Exceptions group will have priority over the data stored in the rating module.

Example 1: Exchange 377 must be added and rated in accordance to band 5 and you want to store it in variable No. 483 (exception 4): Enter 483*37705*

Example 2: Exchange 956 is to be restricted and you want to store it in variable No. 487 (exception 9): Enter 487*95600*

Example 3: Exception 14 must be deleted: Enter 493*0*

Use the following chart to keep track of the exceptions associated with this specific location.

480 Exception 1.	_____	490 Exception 11.	_____
481 Exception 2.	_____	491 Exception 12.	_____
482 Exception 3.	_____	492 Exception 13.	_____
483 Exception 4.	_____	493 Exception 14.	_____
484 Exception 5.	_____	494 Exception 15.	_____
485 Exception 6.	_____	495 Exception 16.	_____
486 Exception 7.	_____	496 Exception 17.	_____
487 Exception 8.	_____	497 Exception 18.	_____
488 Exception 9.	_____	498 Exception 19.	_____
489 Exception 10.	_____	499 Exception 20.	_____

INTRA LATA BAND CHARGES GROUP

There are fifteen bands available for pricing Intra lata calls, each band contains the Initial Rate (IR), Initial Period (IP), Subsequent Rate (SR) and Subsequent Period (SP). Rates are stored in cents (three digits) and period is stored in minutes, 0=unlimited time.

One or more of these bands will contain Intra lata charge data as determined by the rating module installed. Before adding new information, be sure you are storing it into an empty band. Use the following chart as a convenient way to keep track of the rates and periods.

Note: Intra Lata call prices include all surcharges and may be subject to discounts.

BAND 16
 520 IR ___ ___ ___
 521 IP ___ ___ ___
 522 SR ___ ___ ___
 523 SP ___ ___ ___

BAND 21
 540 IR ___ ___ ___
 541 IP ___ ___ ___
 542 SR ___ ___ ___
 543 SP ___ ___ ___

BAND 26
 560 IR ___ ___ ___
 561 IP ___ ___ ___
 562 SR ___ ___ ___
 563 SP ___ ___ ___

BAND 17
 524 IR ___ ___ ___
 525 IP ___ ___ ___
 526 SR ___ ___ ___
 527 SP ___ ___ ___

BAND 22
 544 IR ___ ___ ___
 545 IP ___ ___ ___
 546 SR ___ ___ ___
 547 SP ___ ___ ___

BAND 27
 564 IR ___ ___ ___
 565 IP ___ ___ ___
 566 SR ___ ___ ___
 567 SP ___ ___ ___

BAND 18
 528 IR ___ ___ ___
 529 IP ___ ___ ___
 530 SR ___ ___ ___
 531 SP ___ ___ ___

BAND 23
 548 IR ___ ___ ___
 549 IP ___ ___ ___
 550 SR ___ ___ ___
 551 SP ___ ___ ___

BAND 28
 568 IR ___ ___ ___
 569 IP ___ ___ ___
 570 SR ___ ___ ___
 571 SP ___ ___ ___

BAND 19
 532 IR ___ ___ ___
 533 IP ___ ___ ___
 534 SR ___ ___ ___
 535 SP ___ ___ ___

BAND 24
 552 IR ___ ___ ___
 553 IP ___ ___ ___
 554 SR ___ ___ ___
 555 SP ___ ___ ___

BAND 29
 572 IR ___ ___ ___
 573 IP ___ ___ ___
 574 SR ___ ___ ___
 575 SP ___ ___ ___

BAND 20
 536 IR ___ ___ ___
 537 IP ___ ___ ___
 538 SR ___ ___ ___
 539 SP ___ ___ ___

BAND 25
 556 IR ___ ___ ___
 557 IP ___ ___ ___
 558 SR ___ ___ ___
 559 SP ___ ___ ___

BAND 30
 576 IR ___ ___ ___
 577 IP ___ ___ ___
 578 SR ___ ___ ___
 579 SP ___ ___ ___

INTRA LATA EXCEPTIONS GROUP

All known intra lata exchanges and rates associated with the exchange where the payphone is located are stored in the rating module at the time of manufacture however, new exchanges are created all the time, and the rates associated with some exchanges may change in time. In addition, it is possible to restrict a whole exchange.

To enter a new exchange, or to correct an already existing one, enter a "*", three digits for the area code, three digits for the exchange, two digits for the intra lata band number and a "*". To restrict an exchange, enter a 00 in place of the band number. The Exceptions group will have priority over the data stored in the rating module.

Example 1: Exchange 377 in area code 215 must be added, and rated in accordance to band 25 and stored in variable 586 (exception 7): Enter 586*21537725*

Example 2: Exchange 956 in area code 914 is to be restricted and you want to store it in variable 597 (exception 18): Enter 597*91495600*

Example 3: Exception 7 must be deleted: Enter 586*0*

580 Exception 1. _____	590 Exception 11. _____
581 Exception 2. _____	591 Exception 12. _____
582 Exception 3. _____	592 Exception 13. _____
583 Exception 4. _____	593 Exception 14. _____
584 Exception 5. _____	594 Exception 15. _____
585 Exception 6. _____	595 Exception 16. _____
586 Exception 7. _____	596 Exception 17. _____
587 Exception 8. _____	597 Exception 18. _____
588 Exception 9. _____	598 Exception 19. _____
589 Exception 10. _____	599 Exception 20. _____

INTER LATA BAND CHARGES GROUP

There are fifteen bands available for pricing inter lata calls, each band contains the Initial Rate (IR), Initial Period (IP), Subsequent Rate (SR) and Subsequent Period (SP). Rates are stored in cents (three digits) and period is stored in minutes, Ø=unlimited time.

One or more of these bands will contain inter lata charge data as determined by the rating module installed. Before adding new information, be sure you are storing it into an empty band. Use the following chart as a convenient way to keep track of the rates and periods.

Note: Inter Lata Band Charges include all surcharges, and may be subject to discount.

BAND 31
 62Ø IR ___ ___ ___
 621 IP ___ ___ ___
 622 SR ___ ___ ___
 623 SP ___ ___ ___

BAND 36
 64Ø IR ___ ___ ___
 641 IP ___ ___ ___
 642 SR ___ ___ ___
 643 SP ___ ___ ___

BAND 41
 66Ø IR ___ ___ ___
 661 IP ___ ___ ___
 662 SR ___ ___ ___
 663 SP ___ ___ ___

BAND 32
 624 IR ___ ___ ___
 625 IP ___ ___ ___
 626 SR ___ ___ ___
 627 SP ___ ___ ___

BAND 37
 644 IR ___ ___ ___
 645 IP ___ ___ ___
 646 SR ___ ___ ___
 647 SP ___ ___ ___

BAND 42
 664 IR ___ ___ ___
 665 IP ___ ___ ___
 666 SR ___ ___ ___
 667 SP ___ ___ ___

BAND 33
 628 IR ___ ___ ___
 629 IP ___ ___ ___
 63Ø SR ___ ___ ___
 631 SP ___ ___ ___

BAND 38
 648 IR ___ ___ ___
 649 IP ___ ___ ___
 65Ø SR ___ ___ ___
 651 SP ___ ___ ___

BAND 43
 668 IR ___ ___ ___
 669 IP ___ ___ ___
 67Ø SR ___ ___ ___
 671 SP ___ ___ ___

BAND 34
 632 IR ___ ___ ___
 633 IP ___ ___ ___
 634 SR ___ ___ ___
 635 SP ___ ___ ___

BAND 39
 652 IR ___ ___ ___
 653 IP ___ ___ ___
 654 SR ___ ___ ___
 655 SP ___ ___ ___

BAND 44
 672 IR ___ ___ ___
 673 IP ___ ___ ___
 674 SR ___ ___ ___
 675 SP ___ ___ ___

BAND 35
 636 IR ___ ___ ___
 637 IP ___ ___ ___
 638 SR ___ ___ ___
 639 SP ___ ___ ___

BAND 4Ø
 656 IR ___ ___ ___
 657 IP ___ ___ ___
 658 SR ___ ___ ___
 659 SP ___ ___ ___

BAND 45
 676 IR ___ ___ ___
 677 IP ___ ___ ___
 678 SR ___ ___ ___
 679 SP ___ ___ ___

INTER LATA EXCEPTIONS GROUP

All known inter lata exchanges and rates associated with the exchange where the payphone is located are stored in the rating module at the time of manufacture, however, new exchanges are created all the time, and the rates associated with some exchanges may change in time. In addition, it is possible to restrict a whole exchange.

To enter a new exchange, or to correct an already existing one, enter a "*", three digits for the area code, three digits for the exchange, two digits for the inter lata band number and a "*". To restrict an exchange, enter a 00 in place of the band number. The Exceptions group will have priority over the data stored in the rating module.

Example 1: Exchange 756 in area code 301 must be added, and rated in accordance to band 32 and you want to store it in variable 685 (exception 6): Enter 685*30175632*

Example 2: Exchange 975 in area code 203 must be restricted and you want to store it in variable 693 (exception 14): Enter 693*20397500*

Example 3: Exception 9 must be deleted: Enter 688*0*

680 Exception 1. _____	690 Exception 11. _____
681 Exception 2. _____	691 Exception 12. _____
682 Exception 3. _____	692 Exception 13. _____
683 Exception 4. _____	693 Exception 14. _____
684 Exception 5. _____	694 Exception 15. _____
685 Exception 6. _____	695 Exception 16. _____
686 Exception 7. _____	696 Exception 17. _____
687 Exception 8. _____	697 Exception 18. _____
688 Exception 9. _____	698 Exception 19. _____
689 Exception 10. _____	699 Exception 20. _____

SPECIAL NPA BAND CHARGES GROUP

There are fifteen bands available for pricing special NPA calls, each band contains the Initial Rate (IR), Initial Period (IP), Subsequent Rate (SR) and Subsequent Period (SP). Rates are stored in cents (three digits) and period is stored in minutes, 0=unlimited time.

One or more of these bands will contain special NPA charge data as determined by the rating module installed. Before adding new information, be sure you are storing it into an empty band. Use the following chart as a convenient way to keep track of the rates and periods.

Note: Special NPA Band Charges include all surcharges and may be subject to discount.

BAND 46	BAND 51	BAND 56
720 IR ___ ___ ___	740 IR ___ ___ ___	760 IR ___ ___ ___
721 IP ___ ___ ___	741 IP ___ ___ ___	761 IP ___ ___ ___
722 SR ___ ___ ___	742 SR ___ ___ ___	762 SR ___ ___ ___
723 SP ___ ___ ___	743 SP ___ ___ ___	763 SP ___ ___ ___
BAND 47	BAND 52	BAND 57
724 IR ___ ___ ___	744 IR ___ ___ ___	764 IR ___ ___ ___
725 IP ___ ___ ___	745 IP ___ ___ ___	765 IP ___ ___ ___
726 SR ___ ___ ___	746 SR ___ ___ ___	766 SR ___ ___ ___
727 SP ___ ___ ___	747 SP ___ ___ ___	767 SP ___ ___ ___
BAND 48	BAND 53	BAND 58
728 IR ___ ___ ___	748 IR ___ ___ ___	768 IR ___ ___ ___
729 IP ___ ___ ___	749 IP ___ ___ ___	769 IP ___ ___ ___
730 SR ___ ___ ___	750 SR ___ ___ ___	770 SR ___ ___ ___
731 SP ___ ___ ___	751 SP ___ ___ ___	771 SP ___ ___ ___
BAND 49	BAND 54	BAND 59
732 IR ___ ___ ___	752 IR ___ ___ ___	772 IR ___ ___ ___
733 IP ___ ___ ___	753 IP ___ ___ ___	773 IP ___ ___ ___
734 SR ___ ___ ___	754 SR ___ ___ ___	774 SR ___ ___ ___
735 SP ___ ___ ___	755 SP ___ ___ ___	775 SP ___ ___ ___
BAND 50	BAND 55	BAND 60
736 IR ___ ___ ___	756 IR ___ ___ ___	776 IR ___ ___ ___
737 IP ___ ___ ___	757 IP ___ ___ ___	777 IP ___ ___ ___
738 SR ___ ___ ___	758 SR ___ ___ ___	778 SR ___ ___ ___
739 SP ___ ___ ___	759 SP ___ ___ ___	779 SP ___ ___ ___

SPECIAL NPA EXCEPTIONS GROUP

All known special Area Codes (NPA's) such as corridor exceptions etc. and the rates associated with the Area Code and exchange where the payphone is located are stored in the rating module at the time of manufacture however, new NPA's are created all the time, and the rates associated with some NPA's may change in time. In addition, it is possible to restrict a whole NPA.

To enter a new NPA or to correct an already existing one, enter a "*", three digits for the area code, two digits for the special NPA band number and a "*". To restrict an NPA enter 00 in place of the band number. The Exceptions group will have priority over the data stored in the rating module.

Example 1: Area code 503 must be added, and rated in accordance to band 47 and you want to store it in variable No. 782 (exception 3): Enter 782*50347*

Example 2: Area code 809 must be restricted and you want to store it in variable No. 792 (exception 13): Enter 792*80900*

Example 3: Exception 12 must be deleted: Enter 791*0*

780 Exception 1.	_____	790 Exception 11.	_____
781 Exception 2.	_____	791 Exception 12.	_____
782 Exception 3.	_____	792 Exception 13.	_____
783 Exception 4.	_____	793 Exception 14.	_____
784 Exception 5.	_____	794 Exception 15.	_____
785 Exception 6.	_____	795 Exception 16.	_____
786 Exception 7.	_____	796 Exception 17.	_____
787 Exception 8.	_____	797 Exception 18.	_____
788 Exception 9.	_____	798 Exception 19.	_____
789 Exception 10.	_____	799 Exception 20.	_____

INTERSTATE BAND CHARGES GROUP

All known area codes (NPA's) which are outside of the state where the payphone is located are stored in the rating module at the time of manufacture, however, new NPA's are created all the time and the rates between some NPA's may change in time. When a new NPA is created, the owner must add the new NPA to the special NPA exceptions group (section 2.5.11). When rates change or if it is desired to change the initial time from 1 minute to say 3 minutes, the owner must use the interstate band charges group.

Note: Interstate Band Charges include all surcharges, and can be subject to discounts.

There are ten bands available for pricing Interstate calls, each band contains the Initial Rate (IR), Initial Period (IP), Subsequent Rate (SR) and Subsequent Period (SP). Rates are stored in cents (three digits) and period is stored in minutes, Ø=unlimited time.

One or more of these bands will contain local charge data as determined by the rating module installed. Before adding new information, be sure you are storing it into an empty band. Use the following chart as a convenient way to keep track of the rates and periods.

BAND 1
 82Ø IR ___ ___ ___
 821 IP ___ ___ ___
 822 SR ___ ___ ___
 823 SP ___ ___ ___

BAND 2
 824 IR ___ ___ ___
 825 IP ___ ___ ___
 826 SR ___ ___ ___
 827 SP ___ ___ ___

BAND 3
 828 IR ___ ___ ___
 829 IP ___ ___ ___
 83Ø SR ___ ___ ___
 831 SP ___ ___ ___

BAND 4
 832 IR ___ ___ ___
 833 IP ___ ___ ___
 834 SR ___ ___ ___
 835 SP ___ ___ ___

BAND 5
 836 IR ___ ___ ___
 837 IP ___ ___ ___
 838 SR ___ ___ ___
 839 SP ___ ___ ___

BAND 6
 84Ø IR ___ ___ ___
 841 IP ___ ___ ___
 842 SR ___ ___ ___
 843 SP ___ ___ ___

BAND 7
 844 IR ___ ___ ___
 845 IP ___ ___ ___
 846 SR ___ ___ ___
 847 SP ___ ___ ___

BAND 8
 848 IR ___ ___ ___
 849 IP ___ ___ ___
 85Ø SR ___ ___ ___
 851 SP ___ ___ ___

BAND 9
 852 IR ___ ___ ___
 853 IP ___ ___ ___
 854 SR ___ ___ ___
 855 SP ___ ___ ___

BAND 1Ø
 856 IR ___ ___ ___
 857 IP ___ ___ ___
 858 SR ___ ___ ___
 859 SP ___ ___ ___

ALARMS GROUP

The Alarms group consists of a series of registers containing the status of the various alarms in the system. Variables 920 through 923 contain registers that can be monitored but not changed since their contents are a function of external events. All other alarms can be reset through maintenance code 962. To obtain the status of any alarm input, dial the valid owner bypass code, wait three seconds and dial three-digit variable.

- 920 ALARM NO. 1. Normally associated with upper housing access. (OFF)
- 921 ALARM NO. 2. Normally associated with handset monitor. (OFF) *SERIES 3 + 4
BOARDS ONLY*
- 922 ALARM NO. 3. Normally associated with vault access. (OFF)
- 923 ALARM NO. 4. Normally associated with an external contact such as may be found in vending machines (empty indicators), or in intrusion detectors. A contact closure to gnd indicates an alarm. (OFF)
- 924 ALARM NO. 5. Battery backed RAM status. On if RAM has been loaded with the default values from the Rating Module, but the changes and additions have not been loaded. (OFF)
- 925 ALARM NO. 6. Cashbox 80% full level has been exceeded. (OFF)
- 926 ALARM NO. 7. Cashbox 95% full level has been exceeded. (OFF)
- 927 NO ACTIVITY ALARM*
- 928 NO COIN ALARM*
- 929 BAD EEPROM BURN ALARM*

MAINTENANCE GROUP

The Maintenance group consists of commands used by the maintenance man locally or remotely to initiate specific actions in the payphone. These maintenance commands are initiated by dialing the three-digit only.

- 960 TRANSPARENT MODE. Causes the payphone to be connected to the Telephone Company line without restrictions, or requiring payment. Requires that the telco line be a tone dialing line since the payphone's keypad will be connected directly to the line. This mode of operation is terminated when the payphone is returned on-hook.
- 961 CALL HOME. Causes the payphone to initiate a call to the "Home" base and report the alarm status with voice telemetry if option 129 is on. If option 130 is on and the unit is equipped with the optional modem, the payphone calls home and delivers a status report. This command should be used by the maintenance man upon arrival at the payphone site during a service call in which the cashbox is to be serviced.
- 962 RESET ALL COUNTERS. This command is to be used by the maintenance man upon departure after a maintenance call in which the cashbox has been serviced.
- 963 TERMINATE TELEMTRY MODE. Will cause the payphone to go back on-hook to terminate a telemetry link.
- 964 RELOAD BATTERY-BACKED RAM. Will clear the RAM of all changes and additions and will load default values from the Rating Module. This command is normally used when a new rating module is installed, it may be necessary to make changes and additions.

LONG DISTANCE SERVICE OPERATION

The model 1200-2 will interface with several types of Long Distance Service (LDS) switches. The unit may be optioned to route all coin/toll (1+) calls through an OCC (Other Common Carrier) such as MCI or US/Sprint (Equal Access), while Operator only (O-) and Operator assisted (O+) calls can be routed through an Operator Assisted LDS (OALDS). In addition, the 1200-2 can be equipped with an optional Commercial Credit Card (CCC) reader to route all 1+CCC calls through a CCCLDS switch such as a Summa Four PTSS 1000.

COIN/TOLL CALLS THROUGH AN OCC

If Option 143 (EQUAL ACCESS) is off, the 1200-2 will route all coin/toll calls (toll calls paid for in coins) through the Local Central Office (LCO).

If Option 143 is on, and 10-XXX service is available where the payphone is located, the payphone will dial the 10-XXX number stored in register 260 (OCC ACCESS NUMBER) to access the OCC followed by the destination number. If 10-XXX service is not available, the number stored in register 260 (950-XXX or any other number desired) will be dialed, then the unit will detect answer back followed by OCC dial tone and the payphone then dials the authorization code stored in register 261 (OCC AUTHORIZATION CODE), followed by the destination number. The 1200-2 will then monitor the line for call completion to determine when to start timing the call.

O- and O+ CALLS THROUGH AN OALDS

If Options 138 (O+LDS) and 139 (O-LDS) are OFF, the payphone will

route all operator calls through the LCO. If either 138 or 139 is ON, the payphone will route the call through the OALDS switch whose access telephone number is stored in register 262 (OALDS SWITCH PHONE NUMBER).

Because there are several types of OALDS, there are several interface requirements which must be met to properly operate the 1200-2 into these switches, in addition, the OALDS may be located outside the local calling zone of the payphone which would require that the call go through an OCC first, or use an in-wats line (1+800).

a) 10-XXX operation

When the OALDS is located outside the local access zone (140 OFF), the payphone will dial the 10-XXX number stored in register 260 (OCC ACCESS NUMBER), followed by (d) below.

b) 950-XXXX operation

When 10-XXX service is not available from the LCO serving the payphone, the 1200-2 will dial the 950-XXX number stored in register 260 (OCC ACCESS NUMBER), when it detects answer supervision followed by 400 Hz dial tone, then the payphone will dial the authorization number stored in register 261 (OCC AUTHORIZATION CODE), followed by (d) below.

c) 1+800 operation

When the OALDS uses in-wats lines to handle calls from outside the local zone, the 1200-2 will dial the 1+800-XXX-XXXX number stored in register 260 (OCC ACCESS NUMBER). When it detects answer supervision followed by 400 Hz dial tone, then the payphone will dial the identification number

stored in register 263 (OCC AUTHORIZATION CODE), followed by the destination number and open the mike so that the customer may speak to the OALDS operator.

d) OALDS in local zone

When the OALDS is located within the local calling zone, or if either (a) or (b) above have been completed, the payphone will dial the access number stored in register 262 (OALDS SWITCH PHONE NUMBER), when it detects answer supervision followed by 400 Hz dial tone, the payphone will dial the identification number stored in register 263 (O+ ID). If option 141 (DELETE FIRST DIGIT) is ON, the payphone will delete the leading 0 in the destination number, else it will leave the destination as dialed by the customer. The payphone will then wait a number of seconds as specified by the contents of register 231 (LDS DELAY), or not wait at all if 231 contains 0, then dial the destination number and open the mike so that the customer may speak to the OALDS operator.

COMMERCIAL CREDIT
CARD CALLS

When the 1200-2 is equipped with a Commercial Credit Card (CCC) reader, and option 128 is ON (PAYPHONE IS EQUIPPED WITH CREDIT CARD READER OPTION), the unit will operate with either coins or CCC's. If the customer dials the destination number first, the voice circuitry will request the proper amount to be deposited or for the credit card to be inserted. If the customer inserts the credit card first, the 1200-2 will read the contents of the card and process the call as follows:

The payphone will go off-hook towards the LCO and dial the

contents of register 265 (CREDIT CARD CALL PROCESSOR ACCESS NUMBER), then it will detect call completion and 400 Hz tone from the call processor. Then the unit transmits the contents of register 266 (CCC PHONE ID), the call processor acknowledges the ID with dial tone and the 1200-2 then dials the card number, account number, expiration date, and checksum. The call processor acknowledges this data by returning dial tone and the 1200-2 then dials the destination number and opens the mike.

INSTALLATION TESTS

When the Model 1200-2 is shipped from the factory, it is programmed in accordance to responses to a questionnaire made at the time of purchase. You should verify these values at this time. All other variables will be set to their default value as shown above.

Local Call Test: Go off-hook and listen for dial tone, dial a known local number such as the time or weather forecast.

Voice Response: After the number is dialed, you will hear "please deposit 25 cents for the next minute" (assuming the local call charge is 25 cents and that this is a metered location) if no coins are deposited within five seconds, you will hear "please deposit 25 cents" repeated every 3 seconds.

Deposit the amount required and note that as you deposit coins:

If three seconds or more elapse between coins, the Model 1200-2 will calculate the remaining difference and you will be prompted to deposit the amount required. When the exact amount is deposited you will hear "thank you."

The Model 1200-2 will turn off the receiver and the keypad then it will go off-hook toward the central office and look for dial tone. When it detects dial tone, it will dial the number. If no dial tone is detected, the Model 1200-2 will wait 12 seconds, go back on-hook and off-hook again, if no dial tone is detected, the Model 1200-2 will go back on-hook towards the Central Office, return the coinage and return dial tone to the receiver.

When the Model 1200-2 successfully completes dialing, the receiver will be turned on again and you should hear the call progress through the telephone company equipment. Some "pops" and other switching noises will be heard, then ring back.

NOTE: Many older Telephone Central Offices are equipped with electromechanical switching equipment which generates excessive noise between the end of dialing and the first ringback. Because of this, you may have to set registers 226, 227, and 228 to a value which consistently allows normal operation.

The Model 1200-2 will monitor the ringback and will turn on the microphone when the phone is answered and speech is present. If you hang up before call completion, the Model 1200-2 will return the coinage.

The Model 1200-2 is equipped with a "SIT" tone detector which detects the three-tone sequence preceding the Telephone Company messages. Dial any number which you know will result in a telco message containing this tone sequence, and note that you can listen to the message as long as you want, the mike is kept off and the coinage returned when you hang up.

Long Distance Calls: The Rating module will price all Toll calls, test this feature by dialing any Long distance number. You will hear the amount required and time purchased. Verify this amount with the charges shown in the phone book.

You may proceed with the call or abort it at this time or allow the Model 1200-2 to dial the number and terminate the call before it is answered.

Coin-Free and Emergency Numbers: The Model 1200-2 is normally programmed to allow 911 to be dialed free of charge, however other emergency or coin-free numbers may be programmed at the site. Test each number as follows: Proceed as above and note that after dialing the number, or after dialing the auto dial code, the Model 1200-2 will immediately go off-hook toward the C.O. and start dialing. You may abort the call before completion or complete it to verify proper programming.

Restricted Numbers/Exchanges: The Model 1200-2 can be programmed on site to restrict certain numbers or whole exchanges. When a restricted number or exchange is dialed, the Model 1200-2 will return dial tone to the receiver.

Special Charges: The 1200-2 can be programmed with special charges or restrictions for information calls, Operator only calls, Operator assisted calls, 800 and 900 number calls and Intra Lata Calls. These charges can be tested by initiating calls as listed, the calls can be aborted after the voice circuitry states the charge required.

FIELD MAINTENANCE

Field maintenance of the Model 1200-2 is normally limited to cleaning or replacing defective components and subassemblies. Units in need of service must be returned to Elcotel at the address below. A return authorization number must be obtained from Elcotel's Customer Service at the address below or by telephone before each lot is shipped.

Prior to performing specific troubleshooting procedures, perform the following routine inspections:

Check the Power terminal block, check for loose connections and/or bad crimping of the wires. If bad crimping exists, replace the cable assembly. Measure 16 VAC across the outer terminals. Turn power off and measure continuity between the center terminal and the metal chassis.

Check the telephone cable, make sure it is firmly seated in the RJ11C jack located on the PC assembly. Verify that the telephone line is in operation by using an RJ11C terminated "butt-set."

Check all connector terminated cables attached to the assembly, make sure they are firmly seated, check for broken wires, if broken wire exists replace the defective assembly.

Check for proper installation of the rating module, the label side of the module should be facing down. The piggyback assembly is built so that it will properly guide the module into the connector, make sure the surface containing the label snugs up against the edge of the piggyback assembly.

Check for damaged components, if damage exists, replace the entire assembly.

Ensure that the entire PCM-2 assembly is installed properly and is fully seated.

Coin Relay Hopper and Coin Chute Assembly: Check for jammed coins in the coin chute assembly. If coins are found, remove them by removing the coin chute assembly and turn it upside down. If this does not clear the coins, replace the entire assembly.

Check for coins jammed in the hopper. If coins are found dislodge them by using an orange stick or similar object, taking care not to damage the door, latch, or latch springs.

Ensure that the assembly locking tab in the back of the coin chute is properly seated in its groove.

Check for foreign particles between the relay armature and the pole piece. If particles are found, remove them.

Inspect the trigger switches for obvious damage. If necessary, replace the coin chute assembly.

Verify that the coin relay contact springs operate fully on the coin drop and are fully restored when the relay is operated. Verify that no interference with the covers exists. If necessary replace the entire coin relay-hopper assembly.

Coin Rejector Assembly: Ensure that the coin rejector is vertical within 1-1/2 degrees. If it is not vertical, correct the angle by adjusting the backboard or booth.

Ensure that the rejector is clean and free of foreign matter. If not, clean it with a lint-free rag. Also clean the nickel bounce tester using a rag wrapped around an orange stick or screwdriver. Do not allow the gate to slam shut.

Verify that parts have not been damaged or have not fallen off (cradles, counterweights, etc.). If any have fallen off, replace the entire assembly.

Ensure that the nickel bounce tester mounting screw is tightened, if not, tighten it but do not over torque.

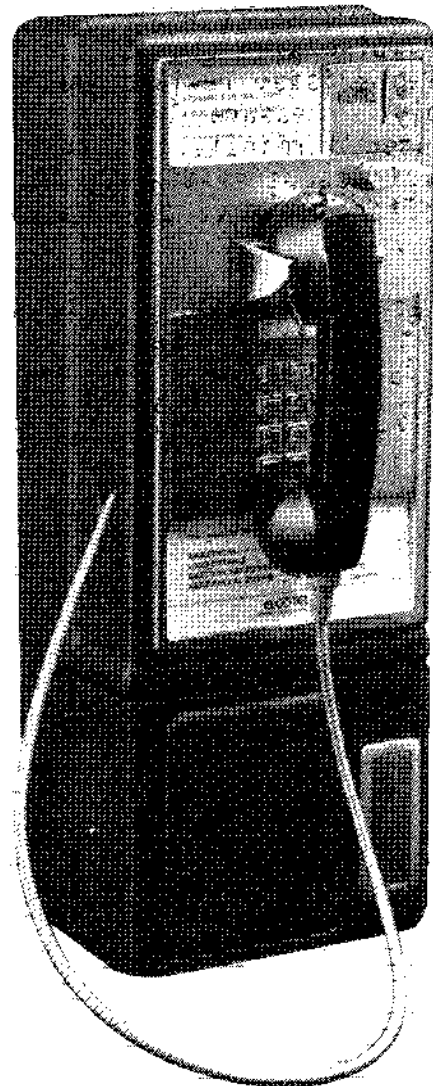
Check for free operation of the linkage. If binding is detected, clean the unit or replace the entire assembly.

Check the coin release lever on the upper housing assembly for proper operation. If a problem is detected, replace the entire upper housing.

Hook-switch, Dial, and Display Assembly: Verify that the hook-switch cam is not damaged, if it is, replace the entire assembly. Check to ensure that the hook-switch contacts are operating properly, if not, replace the entire assembly.

Verify that the armored cord mounting bracket is in place. If its screw is stripped, replace the entire hook-switch and dial housing assembly. Check for a damaged handset and replace if necessary.

Check for binding or sticky Touch Call Unit push buttons, verify that the TCU operates properly when push buttons are depressed. If not, replace the TCU Assembly.



WARRANTY STATEMENT

Elcotel warrants that the electronic modules of its Products operate within their published specifications and shall be free from defects in material and workmanship for a period of one (1) year from the date of shipment by Elcotel. The non-electronic portion of the Product shall bear the warranty of the manufacturer thereof.

CUSTOMER may return to Elcotel during the applicable warranty period, at CUSTOMER'S shipping expense, any Product sold by Elcotel to CUSTOMER which is defective. Elcotel shall return to CUSTOMER, as promptly as possible but not later than thirty (30) days after receiving a defective item as described above which is under warranty coverage, a working replacement or the original product repaired. The correction of such defective Product(s) shall be at no cost to CUSTOMER except for the expense of shipping the defective Product(s) to Elcotel which CUSTOMER will pay. The cost of shipping repaired or replacement Product(s) back to customer shall be paid by Elcotel.

THE CORRECTION OF SUCH DEFECTS BY REPAIR OR REPLACEMENT IN THE MANNER SET FORTH ABOVE SHALL CONSTITUTE THE SOLE AND EXCLUSIVE REMEDY OF CUSTOMER AND SHALL CONSTITUTE FULFILLMENT OF ALL THE OBLIGATIONS OF ELCOTEL WITH RESPECT TO ANY WARRANTY GIVEN HEREIN OR IMPLIED RELATING TO ANY PRODUCT SOLD OR DELIVERED BY ELCOTEL.

THE FOREGOING WARRANTIES ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES WHETHER ORAL, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. ELCOTEL shall have no obligation to repair, replace, or correct any Product manufactured by it which has been subjected to misuse, mishandling, neglect, accident, or abuse, or has been subjected to alteration or repair by persons other than ELCOTEL. ELCOTEL SHALL NOT BE LIABLE FOR ANY SPECIAL, CONSEQUENTIAL, INDIRECT, CONTINGENT OR INCIDENTAL DAMAGE WHATSOEVER.



SPECIFICATIONS

POWER REQUIREMENTS: 16 VAC, 1 Amp (115 VAC plug-in power module supplied)
LINE INTERFACE: Standard B1 line, RJ11C terminated
HANDSET: Hearing aid compatible
COIN MECHANISM: Single slot, accepts 5 cent, 10 cent and 25 cent coins
MOUNTING: Industry standard arrangement
PHYSICAL: 21 x 7⁵/₈ x 6 inches.
Weight: 48 lbs.

FCC Registration No. E2D50771426-CX-E
Ringer equivalency 0.4A

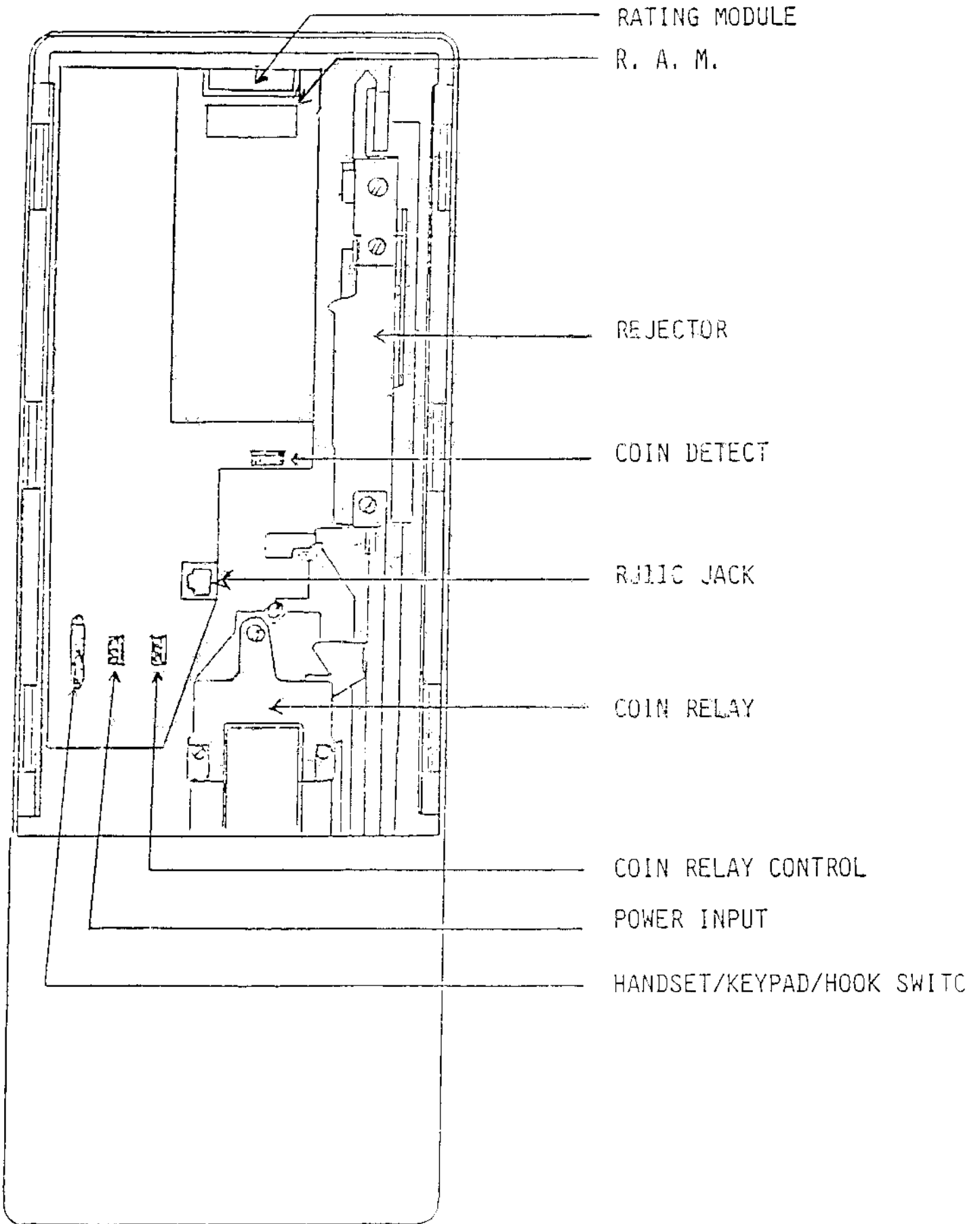


FIGURE 1A LOWER HOUSING

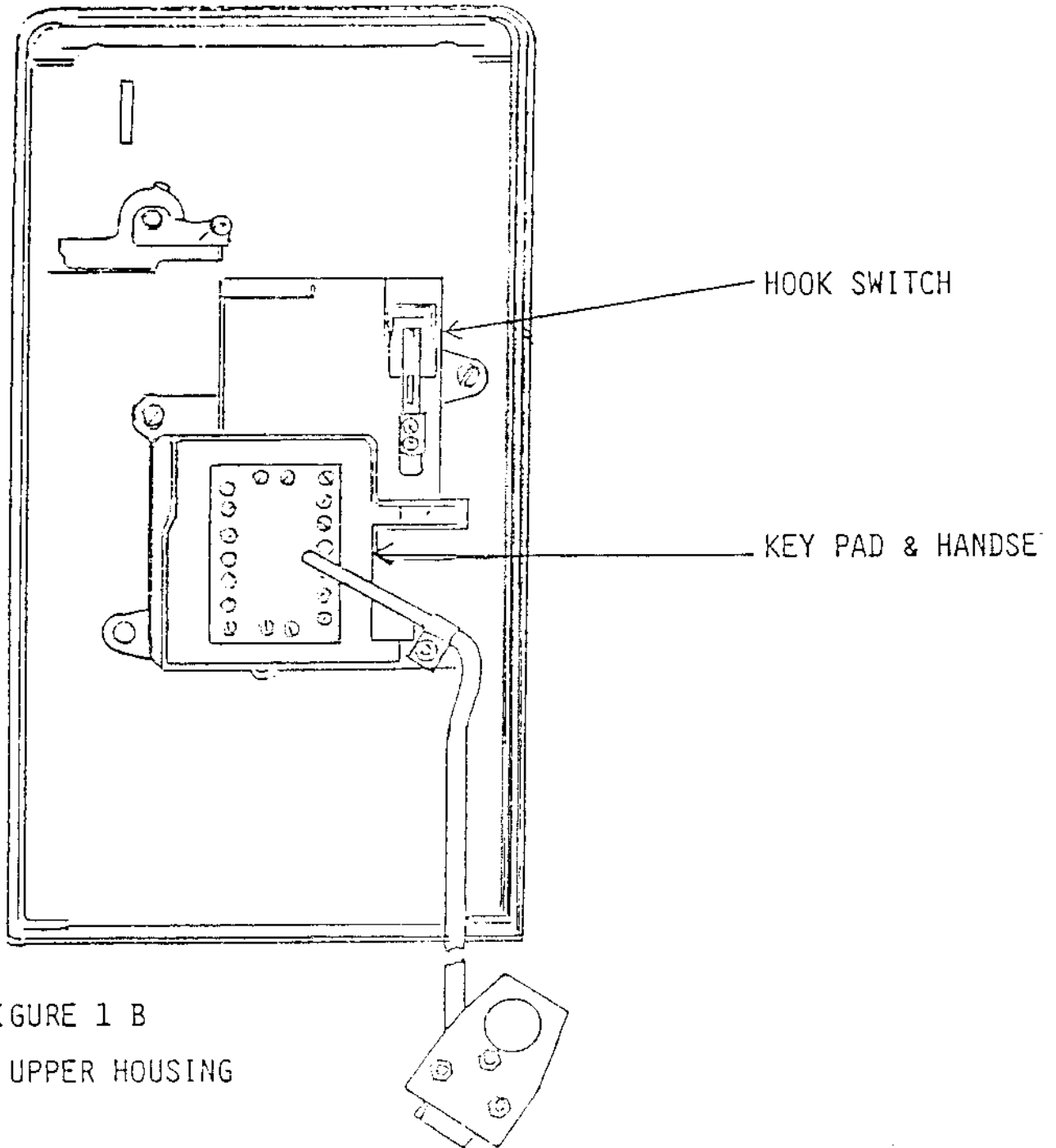
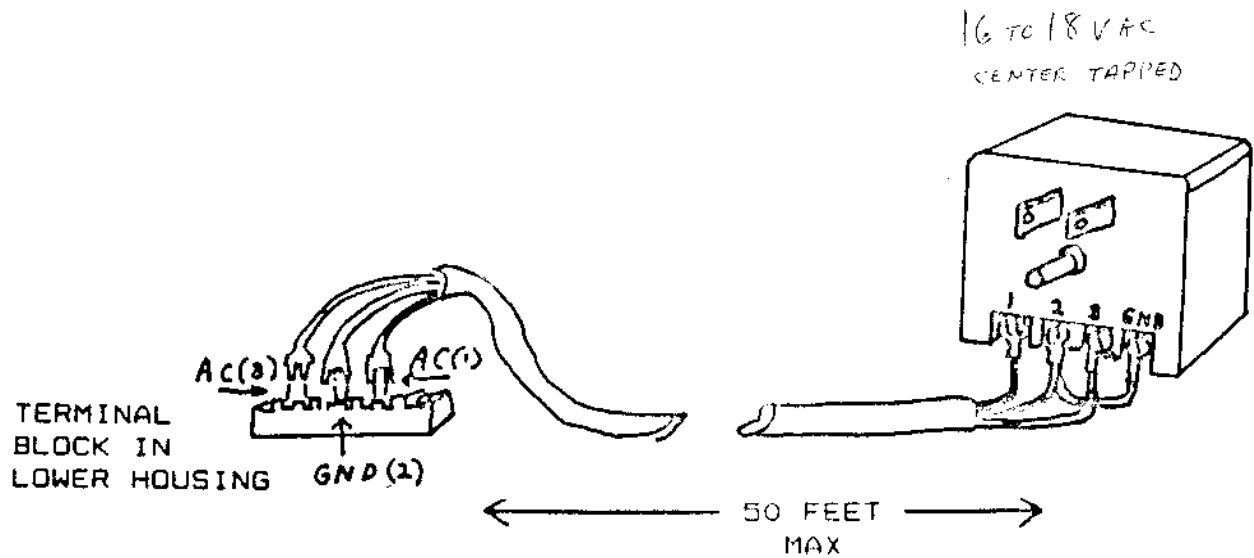


FIGURE 1 B
UPPER HOUSING



CABLE: 3 CONDUCTOR #18 OR LARGER, MULTIPLE STRAND
 LENGTH AS NEEDED, CONSULT FACTORY IF MORE
 THAN 50 FEET
 TRANSFORMER-END TERMINALS: PANDUIT PN 18-6F
 OR EQUIVALENT
 PHONE-END TERMINALS: PANDUIT D18-250 OR
 EQUIVALENT

FIG. 2 POWER MODULE/CABLE

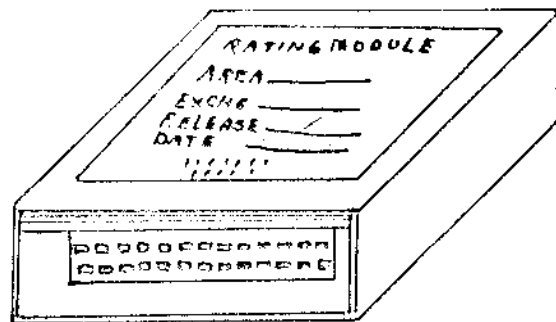


FIG. 3 RATING MODULE

MOUNTING TAB

J1 RATING MODULE

ELCOTEL 1200-2 BOARD

common [5-pin connector]

TO ALARM SWITCHES

J5 4 3 2 1 [5-pin connector]

TO COIN SWITCHES

GREEN common
WHITE 25¢
RED 10¢
BLUE 5¢

TO KEYPAD

J4

J8

PHONE LINE JACK

J6 POWER

RED 3
GREEN 2
YELLOW 1

J7 ESCROW COIL

3 0
2 0
1 0

GREEN
RED
WHITE

MOUNTING SCREW



3 2 1
L1 L2 G
RED GREEN YEL

