DECEMBER RATES CHANGES

Below is a listing of the areas that were affected in December 1989. We are generally notified of these changes in advance so, they may not be effective immediately. If you have phones in any of the areas listed below, most updates are simply the addition of a local exchange. Detailed information can usually be obtained from your local PSC/PUC or telephone company.

If changes become complex or information about the changes is unavailable, we recommend purchasing new rate files from Elcotel.

In the very near future we will be offering a rates update service. We want to assist you in keeping your Elcotel payphones loaded with...
"THE MOST ACCURATE RATES IN THE INDUSTRY"

201; 202; 205; 206; 208; 209; 212; 213; 214; 215;
216; 217; 218; 219; 301; 303; 304; 305; 307; 308;
309; 312; 314; 315; 316; 317; 318; 319; 402; 404;
405; 406; 407; 409; 409; 412; 414; 415; 417; 501;
502; 503; 504; 505; 507; 508; 509; 512; 513; 515;
516; 518; 601; 602; 606; 607; 608; 609; 612; 614;
615; 617; 618; 619; 701; 702; 703; 704; 707; 708;
712; 713; 714; 715; 716; 718; 719; 801; 803; 804;
805; 806; 809; 812; 813; 814; 815; 816; 817; 818;
901; 904; 912; 913; 914; 915; 916; 918; 919:

AREA CODE 312 or 708

We mentioned a few months ago that Area Code 312 would be split. Area code 312 is now for the Chicago city limits only, and Area Code 708 covers the areas outside the city limits. Since this will be a bit confusing at first, Illinois Bell has made a Toll Free number available to determine which Area Code a particular exchange will fall into. The number is: 1-800-274-6876. Simply call this number and through the miracle of DTMF telephony you can ask their computer as many as five exchanges per phone call. Don't forget, as of November 11th it is necessary to dial the Area Code plus the phone number when calling between Chicago and the suburbs. We recommend that you update your rate center files that are affected by these changes.

TOPICS COVERED BY THE TROUBLESHOOTER

If you have anything that you would like to see in the following issues of the TROUBLESHOOTER please give us a call at (813) 758-0389 and ask for extension # 304 or # 259. Or if you prefer, you can send us your comments or suggestions to:

Elcotel, Inc.
6428 Parkland Drive
Sarasota, Fl. 34243
c/o Customer Service

TOLL FREE CUSTOMER SERVICE NUMBER

Back by popular demand is a **Toll Free Customer Service Engineering number**. We expect it to be activated during the first week in February. The new number will be:

1-800-67-REMEDY
1-800-677-3633

To control abuse, calls to this number should only be for Customer Service, and cannot be transferred to other departments.
We hope this will make it easier for you to get technical support in the future.

SERIES FIVE LINE POLARITY

It has come to our attention that the new Series Five Line Powered product is polarity sensitive when detecting "WINKS". There has been an Engineering change issued to make the product ignore polarity when considering winks and will be affected in all future shipments.

For those products in the field we suggest that you simply observe the proper line polarity. This can be done easily by connecting the phone line to the RJ-11 jack and then putting a D.C. voltmeter, set on a scale greater than 50 volts, between pin 1 & 2 of the green J-7 connector. (Located at the very bottom of the board.) (See pages 17 & 18 of series 5 manual.) Pin 1 should be positive with respect to pin 2, (Red lead on pin 1, black lead on pin 2) for proper line polarity. If this is not the case, reverse the tip and ring on the phone line going to the RJ-11 connector and measure it again.

ELECTRONIC TROUBLESHOOTER INDEX

For those of you that call the Electronic Troubleshooter, we have added an index to the Bulletin menu. Now when you call the Electronic Troubleshooter you can find the exact subject that you are interested in and it will be cross referenced to which bulletin it is contained in.

Call up that bulletin and your reference material is on the screen.

For a "hard copy" of the bulletin, put your modem program in the "Capture mode" and then read the entire bulletin. You now have everything that has come across your screen in your capture file. Use a text editor/word processor and you can manipulate it into any form you wish.

If you have any questions about retrieving bulletins, call Customer Service Engineering or "Page the SySop."

JANUARY RATES CHANGES

Below is a listing of the areas that were affected in January 1990. We are generally notified of these changes in advance so, they may not be effective immediately. If you have phones in any of the areas listed below, most updates are simply the addition of a local exchange. Detailed information can usually be obtained from your local PSC/PUC or telephone company.

If changes become complex or information about the changes is unavailable, we recommend purchasing new rate files from Elcotel.

201; 202; 203; 205; 209; 212; 213; 214; 301; 304; 305; 307; 308; 309; 312; 315; 316; 319; 401; 402; 406; 408; 409; 414; 415; 503; 508; 509; 515; 516; 517; 518; 602; 605; 608; 612; 615; 616; 617; 618; 619; 701; 702; 703; 704; 707; 708; 712; 714; 715; 716; 717; 718; 801; 802; 803; 804; 805; 806; 809; 815; 816; 817; 818; 901; 913; 914; 915; 916; 918; 919;

BACKING UP YOUR PNM FILES AND WHY

Have you ever considered how long it took you to enter all of the information into your computer relating to PNM? Probably not unless you've lost it and had to RE-ENTER it. PNM makes it so simple to backup your valuable data that there is really no reason not to. Enter the Utilities option from the main PNM screen and then select Backup or Restore feature and then follow the instructions on the screen. We suggest you back up your PNM on a REGULAR basis. You might even want to consider making two backups for safety sake. Don't forget to date each set of backups, as this will help you determine which set to use when you decide to recycle them.

NEW ELECTRONIC KEYPAD AND HANDSETS

Elcotel will soon be including an electronic keypad and LEXAN handset on all hybird smartphones. The keypad is an elastomer contact type which is far more reliable that the electro-mechanical version. Additional features of this keypad include a double-sided printed circuit board assembly, use of a rugged connector for the lead wire interface, and an electronic common switch, all of which are designed to enhance operation and reliability. The LEXAN handset is stronger and tougher than the standard ABS plastic version used most commonly. In addition this handset contains the improved receiver element that Elcotel had incorporated in the ABS model in mid-1989. This receiver, in combination with the new LEXAN housing, results in a handset that can withstand a tremendous amount of abuse in the field. As a highlight, Elcotel is including the new keypad and handset on their hybrid phone at no additional cost.

EXCHANGE AND FINANCE PROGRAM

Private payphone vendors and owners can now trade in their Intellicall, Ernest, Protel, or early Elcotel boards and receive an unheard of discount on new Elcotel retrofit kits complete with PAOF. We want to make it as easy as possible for users of our competitors' products to give Elcotel and PAOF a try; we believe that once someone sees the difference, they'll come to Elcotel from then on. Elcotel's trade-in program also has the option of being fully-financed. Elcotel receives only $4.75 per week for three years while the customer enjoys the flexibility and enhanced revenue of a new Elcotel smart board equipped with PAOF. There is a 25 board minimum for financing, allowing customers to change over a small part of their route and see what an improvement PAOF and the Elcotel product can make.

DOS COMMANDS FOR EVERY DAY USE

COPY - Copy a File to a File
Syntax:
copy [drive:][pathname1] [drive:][pathname2]
Example 1: copy c:\abc.exe c:\utility\
This will copy the file abc.exe into the utility directory.
Example 2: copy c:\dos\abc.exe c:\
This will copy the file abc.exe from the dos directory to your root directory. [c:\]
Example 3: copy c:\dos\abc.exe c:\utility\
This will copy abc.exe from the dos directory to the utility directory.

DIR - Displays files of the directory you are in.
Syntax:
dir
Example 1: dir a:/w
This will display files in the "A" drive in a "wide" five column format.
Example 2: dir a:*.com/p
This will display files (one page at a time) in the "A" drive that have the extension "com".
/p displays files and pauses between screen pages.
/w displays files in a five columns format.
The /p and or /w switches can be used with any dir syntax.

CD -(Change Directory) Changes from one directory to another.
Syntax:
cd\directoryname\subdirectoryname
Example 1: - cd\
This will put you into the root directory.
Example 2: - cd\house
This will put you into the house directory.
Example 3: - cd\test\utility
This will put you into the sub-directory utility which resides below the test directory.

FEBRUARY RATES CHANGES

Below is a listing of the areas that were affected in February 1990. We are generally notified of these changes in advance so, they may not be effective immediately. If you have phones in any of the areas listed below, most updates are simply the addition of a local exchange. Detailed information can usually be obtained from your local PSC/PUC or telephone company.

201; 202; 203; 205; 206; 207; 208; 209; 213; 214; 215; 216; 218; 219; 301; 303; 304; 305; 307; 308; 312; 313; 314; 315; 316; 317; 318; 401; 402; 404; 405; 406; 407; 408; 409; 414; 415; 419; 501; 502; 503; 504; 505; 507; 508; 509; 512; 515; 516; 518; 602; 605; 607; 609; 612; 614; 615; 618; 619; 702; 703; 704; 707; 708; 712; 713; 714; 716; 717; 719; 801; 804; 805; 806; 812; 813; 814; 815; 817; 818; 901; 904; 913; 914; 915; 916; 919;

If changes become complex or information about the changes is unavailable, we recommend purchasing new rate files from Elcotel.

ELCOTEL TECHNICAL TRAINING PROGRAM

Training is a vital part of understanding the many aspects of Elcotel products. You can become more efficient at maintaining your payphone or ACP networks by successfully completing the training classes offered. The classes are free of charge and are in session on the second and third weeks of each month at the corporate office in Sarasota Florida. On-site training is also available with appropriate needs and preparations.

We recommend training for all your payphone needs, ranging from route management with PNM operations to payphone installation and troubleshooting.

For detailed course descriptions and training information please contact Steve Crowley at: (813) 758-0389, extensions 278 or 304.

PNM 1.1.2 AND MODEMS

During the past few months we have received a significant number of complaints about PNM 1.1.2 having difficulty properly handling incoming calls. The PNM packages have become increasingly complex in the way they deal with modems. Some of this is due to some "Hayes compatible" modems being more compatible than others. On some modems, PNM will answer an incoming call and then the status screen will indicate payphone silent. This condition is a result of the modem not recognizing the commands that are being sent to it by PNM. (This is due to the modem not being as compatible as it should be.) The next release of PNM will contain added features to further increase the degree of modem compatibility.

SERIES FIVE LINE POWERED BOARDS

With the nature of line powered products being fairly new to most of us, we are learning new and interesting things. Such as.........
Before you return a Series Five Line Powered board to Elcotel for repair, disconnecting and reconnecting (not removing) the battery from the main board may clear a problem that is unresolvable otherwise. If the problem does not clear itself, again disconnect the battery before shipping the board. This will prevent the battery from being discharged in transit. Likewise when you get the board back from repair the battery will be disconnected and you must reconnect before it will operate.

AUTOMATIC CALL PROCESSOR

The ACP-1 with PAOF software provides improved profit potential for dumb phones, smart phones and PBX trunks. The ACP-1 was designed to be a self contained unit capable of handling a variety of call routings as well as using the State of the Art store-and-forward technology feature, PAOF. For more information about the ACP-1 contact your District Salesperson or call our Sales Department at 1-800-67-SALES.

MATERIAL RETURN AUTHORIZATIONS

Anytime there is a need to return products to Elcotel, a Return Authorization number is required. The reason for this procedure is to provide a means of tracking the equipment as well as keeping a record of each return and repair. This is done by calling the Customer Service Department and describing what you need to return and why. Here are some basic guidelines that must be followed in order to obtain a Return Authorization number:

1. To return a circuit board or a telephone part for repair you need to collect the following information before calling Elcotel. The Serial Number of the product, (if there is no bar code/serial number on a telephone part it is not in warranty and cannot be returned), the series level of the circuit board (1, 1.5, 2, 2.5, 3, 4, 5), and a brief description of the problem.

2. To return a product for credit please have the following information available. The invoice number the product was originally purchased on, the reason for credit, and the name of the person authorizing it. This will decrease the time it takes to properly enter and process the credit.

3. Products sent to us without a Return Authorization number will not be checked into our system. They will be refused.

MARCH RATE CHANGES

Below is a listing of the areas that were affected in March 1990. We are generally notified of these changes in advance, so they may not be effective immediately. If you have phones in any of the areas listed below, most updates are simply the addition of a local exchange. Detailed information can usually be obtained from your local PSC/PUC or telephone company.

201; 202; 203; 205; 206; 208; 209; 212; 213; 214; 215; 216; 217; 218; 301; 302; 303; 304; 305; 307; 308; 309; 312; 313; 314; 316; 317; 318; 319; 401; 402; 404; 405; 406; 407; 408; 409; 412; 414; 415; 417; 419; 504; 505; 507; 508; 512; 513; 515; 516; 518; 601; 602; 603; 605; 608; 609; 612; 614; 615; 616; 617; 618; 619; 701; 702; 703; 704; 707; 708; 712; 713; 714; 715; 716; 717; 718; 719; 801; 802; 803; 804; 805; 806; 809; 813; 814; 815; 816; 817; 818; 901; 904; 912; 913; 915; 916; 918; 919;

If changes become complex or information about the changes is unavailable, we recommend purchasing new rate files from Elcotel.

CUSTOMER SUPPORT

In September of 1989 Customer Support was created to help customers with problems of a non-technical nature. Each and every customer has been assigned a Representative who is chosen by state. If you need information, have a complaint or suggestion, or need to place an order, please call 813-758-0389/800-677-2537 and ask for the Representative designated for your state. Listed below are the Representatives and the states they are assigned.

Mary Jo -- AL; DC; DE; FL; GA; KY; LA; MD; MS; NC; SC; TN; VA; WV

Judi ----- CT; IN; MA; ME; MI; NH; NJ; NY; OH; PA; RI; VT

Andrea --- AR; AZ; CA; CO; HI; IA; ID; IL; KS; MO; MN; MT; NE; NM; ND; NV; OK; OR; SD; TX; UT; WA; WI; WY

AOS ACCESSING

To access an AOS you need to contact the AOS and get an access number, an authorization code, and protocol. (ie: dial access #, wait for tone, dial auth. code, wait for tone, dial destination number.) If the protocol doesn't meet the requirements of a predesigned software macro please contact the Customer Service Department at 1-800-677-3633 and we will help design one for you.

TROUBLESHOOTER TOPICS

If you have anything you would like to see in the following issues of the TROUBLESHOOTER please call us at 1-800-677-3633 and ask for extension #-304 or # 259.

WASHINGTON-METROPOLITAN EXCHANGE AREA DIALING SEQUENCE CHANGE

Effective October 1, 1990 local calls originating in area codes 202, 301, or 703 that cross area code lines will require the user to dial all 10 digits. A grace period will be in effect prior to the mandatory change in October. Customers can use both old and new dialing patterns in this grace period. This period of "permissive dialing" started in January for the northern Virginia area and in April for the Washington D.C. and Maryland area. All customers in the Washington-Metropolitan Exchange Area will need new Rate Center Files due to this dialing pattern change. Elcotel's Database expects to have the new changes loaded within the next month.

CARD*TEL VALIDATION

To receive modem validation service you must complete the Card*Tel certificate along with a list of ANIs for which you are requesting validation. Within 48 hours of receipt of the ANIs the validation service will be accessible. You may obtain a Card*Tel certificate through the Sales Department, Order Processing, or PAOF Adminstration. If any problems occur please call the Customer Service Department.

TRANSFORMERS & ACP-1

Although we only sell one brand of transformer we are supplied two interchangeable models. Both transformers are center tapped and convert the 115 VAC wall outlet voltage to 18 VAC. Many of our customers have called us and asked why some transformers come with ground straps and some don't. If the transformer has an Ault part # of 318-1054-T10 it must have an external ground strap connected between the terminals marked C.T. and GRD (ground). Part # 318-1054-G10 does not require an external ground strap because C.T. and GRD are internally connected.

It is critical to ensure that C.T. and GRD are connected when installing an ACP-1 in a PBX environment. The ACP-1 will not dial out PAOF calls on a ground start PBX if this ground is missing.

PNM 1.1.2 OVERLAYS

It is important to note when editing or adding to your PNM database and using the overlay feature, you should enter all of the information required in the highlighted areas. If you omit entries from any of the overlaid registers, you will hear what sounds like static or noise when accessing the register through voice telementry. The applicable registers are: I.D. number, bypass code, AOS access number, and auth. code.

APRIL RATE CHANGES

Below is a listing of the areas that were affected in April 1990. We are generally notified of these changes in advance, so they may not be effective immediately. If you have phones in any of the areas listed below, most updates are simply the addition of a local exchange. Detailed information can usually be obtained from your local PSC/PUC or telephone company.

202; 205; 207; 208; 213; 214; 215; 218; 301; 303; 307; 308; 313; 315; 316; 318; 319; 402; 405; 406; 407; 409; 412; 417; 501; 502; 503; 505; 507; 515; 601; 602; 605; 606; 612; 615; 618; 702; 703; 708; 712; 717; 719; 801; 802; 809; 814; 816; 817; 901; 904; 913; 915; 916; 918; 919;

If changes become complex or information about the changes is unavailable, we recommend purchasing new rate files from Elcotel.

SERIES-5
SLOW DIAL TONE & BATTERY DISCHARGE

Recently some complaints have been received about the Series-5 having a battery discharge problem and in some cases slow dial tone. The cause for this has been traced to a modification needed on some of the early Series-5 main boards (Rev. A). The modification can be checked for by examining U1 on the main board for a small capacitor between pins 4 & 5.

If you are experiencing this problem, (and the modification is not on the REV. A boards), please contact Customer Service for a Return Authorization number and the problem will be corrected at no charge.

PRODUCT RELEASE
BCT-1

Elcotel is pleased to announce the release of the BCT-1, Battery Charger and Test Unit. The BCT-1 was released on May 21, 1990 and is suitable for charging the batteries in the Series-5 payphone. The BCT-1 has LED charge status indicators and GO/NO GO indicators for loaded and open circuit tests. It takes 24 hours to charge the batteries, but can charge up to four batteries at one time. A transformer is also provided for wall-mounting. The price of the BCT-1 is $99.00 but is subject to change without notice. Contact Order Processing for accurate pricing when ordering.

SERIES 5 UPGRADES AVAILABLE

By replacing the Auxiliary Board, your Series 5.0.0 and 5.0.1 phones can become compatible with PNM 2.0.0. These programs make up the most comprehensive and flexible network tools ever offered for payphone management. Once your Aux. Board is replaced, (software level will be 5.1.1), future software changes can be downloaded via PNM.

To obtain your upgrade, contact Customer Service and ask for a Return Authorization number.

EXPIRED WARRANTY
PAYPHONE PARTS

Elcotel payphone parts are under warranty for up to one year when purchased with a phone. When a payphone part is purchased separately, the warranty is 90 days. We do not presently repair expired warranty parts. However, here are some companies that do:

A.I.C.
New Jersey
609-275-7099

BekTel, Inc.
Georgia
404-448-3611

International Connectors and Cable Corp. (ICC)
California
213-926-0734

Palco Telecom, Inc.
(Palco Only)
Tennessee
800-638-4420

Paystations Unlimited
Colorado
303-934-9000

Tele-Source Corp.
Ohio
419-472-8353

CONVERTING RATE FILES FOR THE ACP-1

You must copy the Rate Files for your ACP-1 to your hard drive with this procedure:

1   Enter the directory that PNM rate files are to be copied to.

EXAMPLE: From the "C" prompt, enter CD\PNM\RATES or CD\PNM

2   Insert the disk in Drive A

3   Enter COPY A:*.ZAP *.ACP

Be careful when you use the DOS Copy command!

Use the asterisks (*) exactly where shown. Using this command will change the file extension in the Rate File name.

SERIES 5 VOLTAGE AND CURRENT REQUIREMENTS

IMPORTANT: Perform these checks before you install a Series 5 Phone.

Reference: Series 5 Manual (PN 3360042), page 4.

Before you begin, make sure the telco line is connected to the RJ11 connector, J11.

1   Locate pins 1 and 2 on J7, the green connector at the bottom of the Main Board, near the thumbscrew. (Pins 1 and 2 are on the left, nearest to the thumbscrew.)
2   Check pins 1 and 2 of J7 Connector for DC voltage. With a multimeter set for DC voltage, the scale should read **-48VDC.**
3   Change the multimeter to DCmA and measure the loop current on the same two pins. This should read at least **23mA.**

NOTE: Depress the switch located at SW1. The red LED, location D25, should light brightly to denote that the telco line current meets the minimum requirements. This is a confirmation of your multimeter tests.

MAY RATE CHANGES

Below is a listing of the areas that were affected in May 1990. We are generally notified of these changes in advance, so they may not be effective immediately. If you have phones in any of the areas listed below, most updates are simply the addition of a local exchange. Detailed information can usually be obtained from your local PSC/PUC or telephone company.

202; 205; 207; 208; 209; 212; 213; 218; 301; 305;
307; 308; 313; 314; 315; 316; 318; 319; 401; 402;
405; 406; 408; 415; 417; 501; 502; 503; 504; 507;
508; 509; 512; 515; 517; 518; 601; 602; 605; 606;
608; 612; 615; 616; 617; 618; 619; 701; 703; 704;
707; 712; 713; 714; 718; 801; 802; 803; 805; 809;
816; 817; 818; 901; 906; 913; 914; 916; 919

If changes become complex or information about the changes is unavailable, we recommend purchasing new rate files from Elcotel.

SERIES 5
COLLECTING ON RING NO ANSWER

We have received several complaints of Series 5 phones collecting money even when the called party does not answer. The problem has been traced to incorrect settings in the registers set aside for 'voice mailbox' / 'limit number of ringbacks'. Although the Series 5 phone does not currently support voice mailbox it does permit the owner to limit the number of ringbacks before call termination. It is imperative that the registers set aside for this feature have the proper values in them in order to insure the proper operation of the phone. **(Software level 5.1.1 and below.) Register 339** ("Voice Mailbox Phone Number") **must be set to 5 to insure proper operation** of this feature.

IF NOT LIMITING RINGBACKS:
Register 409 ("Number of Rings Before Mailbox") must be set to 0 to disable 'voice mailbox' / 'limit number of ringbacks'.

IF LIMITING RINGBACKS:
Register 409 ("Number of Rings Before Mailbox") must be set for the number of ringbacks you wish to allow before terminating the call. You must set this register to double the number of ringbacks that you wish to limit. For example, if you wish to limit the number of ringbacks to 9 then set register 409 to 18 This will be corrected in future Series 5 software releases.

TRAINING CLASS SCHEDULE

If you are interested in learning and understanding the many aspects of Elcotel's products please contact extensions 304 or 259 for a detailed course description. Listed below is a schedule of classes for July and August. Due to limited seating please call 1-813-758-0389 and reserve a space.

July 9 - July 13   Aug. 6 - Aug. 10

PNM 2.0.0

When installing PNM 2.0.0 it's important to use the selection screen at the end of the installation program to organize your module files. The uses are described below.

1. **Set path for Module files:** This is used to assign a path to the directory to store Module Files in. The path will be defaulted to the PNM directory.
2. **Copy Module files to Module File Directory:** This is used to import Module Files from existing PNM's. With this option you will be prompted to enter a path from which the Module Files are to be imported. Module Files from older PNMs and PNM 5.0.1 will retain their original extension. Module Files for ACP use will automatically have their extension changed to ACP in order to be recognized.
3. **Copy Generic files to PNM Directory:** This is used to import Generic files from existing PNMs. (i.e.: General Registers, Speed Dial, Band Charge Files from PNM 1.1.2 and PNM 3.0.0. Register and Options, Priority Parsing, Speed Dial Files from PNM 5.0.1.) Generic Files that are copied from other PNMs will retain their original extensions. The General Registers File, for the ACP, will have its extension changed to RGA in order to be recognized for ACP use.

SERIES-5
FIRST-TIME DOWNLOAD

This is the sequence required in PNM 2.0.0 for a first-time download of a Series 5 phone.

Enter **F4 SCAN**, then **F3 FIND** and use the arrows to select the phone.

1   Select **F6 DIAL**
2   Let PNM connect to the phone.

NOTE that the following alarms will be flashing:

Program in ROM	ON (not necessarily bad)
Rate Reload	ON
Rates Bad	ON
Telemetry Access	ON
Bad Registers	ON

3   Enter **F4 MORE**
    Select **Clear Alarms**
    Select **Get/set date & time**
        Set time if necessary and press **F6 SEND**

Select the files and the SITE SPECIFIC BLOCK one at a time for downloading in the order presented on the screen. **NOTE** that both the Priority Parsing File and the Speed Dials File may not be required in your operation, in which case, it is unnecessary to download them to the phone.

Select the files and Site Specific Block in the following order:

Highlight **Download Rate Module** <Enter>
Highlight **Download Registers and Options** <Enter>
Highlight **Download SITE SPECIFIC BLOCK** <Enter>
Highlight **Download Priority Parsing** <Enter>
Highlight **Download Speed Dials** <Enter>
Highlight **Burn RAM Image to EEPROM** <Enter>

JUNE RATE CHANGES

Below is a listing of the areas that were affected in June 1990. We are generally notified of these changes in advance, so they may not be effective immediately. If you have phones in any of the areas listed below, most updates are simply the addition of a local exchange. Detailed information can usually be obtained from your local PSC/PUC or telephone company.

201; 202; 203; 205; 206; 207; 208; 209; 212; 213; 214; 215; 216; 218; 219; 301; 302; 303; 304; 305; 307; 308; 309; 312; 313; 314; 315; 317; 318; 319; 401; 402; 404; 405; 406; 407; 408; 409; 412; 413; 414; 415; 417; 419; 501; 502; 503; 505; 507; 508; 512; 513; 515; 516; 601; 602; 603; 605; 606; 608; 609; 615; 616; 617; 618; 619; 701; 702; 703; 704; 707; 708; 712; 713; 714; 715; 717; 718; 719; 801; 802; 803; 804; 805; 806; 809; 813; 814; 815; 816; 817; 818; 901; 903; 904; 906; 913; 914; 915; 916; 919

If changes become complex or information about the changes is unavailable, we recommend purchasing new rate files from Elcotel.

UPGRADING SERIES 4 PHONES TO SERIES 5

When upgrading a Series-4 phone to a Series-5 you need to review the following steps:

Install upper housing to lower housing stainless steel ground contacts (Palco part numbers HD-150121-A, HD-150122-A), if they are not present. Make sure that the housings are properly grounded.
FAILURE TO PROPERLY GROUND PAYPHONE HOUSINGS CAN RESULT IN POTENTIAL SHOCK HAZARD.

Check for keypad number HB-1054-A. This particular keypad has been reported to have been manufactured with pinched and/or shorted wires where the wiring enters the keypad housing. This keypad is used in both Palco and GTE enclosures.
HB-1054-A KEYPAD WITH PINCHED WIRES ON A SERIES 5 UPGRADE CAN RESULT IN -48 VOLTS BEING SHORTED TO THE HOUSING.

* Examine the keypad for any pinched or shorted wires. If found, correct the pinched or shorted condition prior to placing the phone back in service. (Enlarge the entry hole if needed.)

In the Series 4 the board ground is connected to the housing, but in the Series 5 the board ground is essentially -48 volts. It is the board ground wire that runs to the keypad that presents the problem. If this wire is shorted to the housing in a Series 4 nothing happens since it is already connected to the housing. If it is shorted to the housing in a Series 5 then two scenarios are possible: 1) if the housing is connected to a solid ground the phone will not operate since the -48 volts is effectively being tied to ground; 2) if the housing is not grounded the phone will operate, but the -48 volts is now shorted to the housing creating a potential shock hazard.

ELCOTEL'S VDC SYSTEM FOR PAOF

If you are using 4.3.7 software or lower levels of 4.3.x this is what you need to do to use Elcotel's VDC system for validation and automatic collection of billing records.

1st: Go into PNM's Expert Editor and set all files with proper settings for PAOF operation. When the Editor asks you to select a "Billing Administrator" select "ITI Administration".

2nd: After finishing all the files you wish to configure for PAOF using the Expert Editor, go into each file using the registers and options file editor, and do the following:

NOTE: User Definable RAM macro registers 370 & 371 must be used to accomplish proper operation with Elcotel's VDC system.

Register 370:   30, 10, 69, 03, 70, 34

Register 371:   30, 10, 20, 69, 03, 70, 34, 13, 60, 52, 15, 45, 01

Change Call Type Register 867: "20"

Change Call Type Register 886: "21"

3rd: Register 215 (Access Authorization code for validation) must be changed to "813230" (this code tells TeleNet where to send your validation request). However, your editor will not allow you to do this in PNM 2.0.0. Please call a Customer Relations Technician at 1-813-758-0389 for technical assistance in changing it. In the next release of PNM (2.0.1) this will automatically be done for you.

SERIES 5 REGISTERS AND OPTIONS FILE CORRECTIONS TO DEFAULTS

Important corrections to the defaults in this file should be made immediately, if you have not already done so!

		From	To
Option 100	Allow Incoming Calls	OFF	ON
Register 206	Long Distance InterLATA	0	2
Register 207	Long Distance Inter-state	0	2
Register 211	900-NXX-XXXX	2	0
Register 417	Call Completion Timer	10	0

New AMNEX 0- MACRO Now Available (5.1.1 software)

Macro 24, assigned to Call Type 36 (Register 236) accesses AMNEX on 0-.

800 and 950 Anti-Fraud Notice

The "0" default in Register 430, Keypad Anti-Fraud Control for 800/900 Calls, when using Macro 31, causes the keypad to remain ON. A setting of "2" causes DTMF anti-fraud to be ON. **NOTE** that this is the exact opposite of the program description on page 70 of the Series 5 Manual.

ON-SITE PROGRAM PROCEDURES
SERIES 5 / 5.1.1 SOFTWARE ONLY

When using Software Release 5.1.1, with the Series 5 phone, the procedure for making programming changes at the phone is different in one important way.

YOU MUST GO ON-HOOK AND BACK OFF-HOOK BEFORE BURNING IN THE CHANGES.

This is the procedure:

1. Enter the voice telemetry programming mode using your owner bypass code.
2. Make the required changes to Registers and Options.
3. Go on-hook and then off-hook.
4. Re-enter the voice telemetry programming mode using your owner bypass code.
5. Enter 975*1*
   Enter 969

With a successful burn, the prompt will be: "Thank You".

INTERNATIONAL FRAUD PREVENTION
4.2.2 PCM SOFTWARE

Please use the following macro to prevent the possibility of fraudulent International chain dialing. This is relevant when the user wants 10XXX access to an OSP with the credit card number provided verbally. It applies to all areas with CO digital switches that are programmed not to accept digits after a DTMF "#". This replaces MACRO 8 for use with 0-, CO-, and 10XXX (0-, 0+) call types.

Owners/operators should keep in mind that this Macro must be used in conjunction with call screening and a complete series of test calls.

370 * 30, 80, 64, 91, 33, 12 *
278 * 10XXX0 *
869 * 20 *   (call type 9, 10XXX 0-/0+)
896 * 20 *   (call type 36, 0-)
897 * 20 *   (call type 37, 00-)

PROPER HARD DISK MANAGEMENT

Improper hard disk management can result in PNM running too slowly. "Optimizing" your hard disk may be the solution. When files are stored they are placed one after another in the first available space on the hard disk with no regard to size, date, subject, etc. If the file is too large, the remainder of the file will go into the next available space. This storage technique causes files to be broken up into two or more pieces at various locations on the disk. This is known as fragmentation. Every time a file is deleted the potential for fragmentation increases.

Run one of these popular "optimizing" programs, which can be purchased from most computer dealers:

Golden Bow's Vopt	Mace Utilities
Disk Optimizer	Disk Organizer
Norton Utilities	PC-Tools

SERIES 5 REGISTERS AND OPTIONS
CORRECTIONS TO THE DEFAULT.ROP FILE

Important corrections to the defaults in this file should be made immediately, if you have not already done so!

		From	To
Option 100	Allow Incoming Call	OFF	ON
Register 206	Long Distance 1+ InterLATA	0	2
Register 207	Long Distance 1+ InterSTATE	0	2
Register 211	900-NXX-XXXX	2	0
Register 417	Call Completion Timer	10	0

New **AMNEX 0- MACRO** Now Available (5.1.1 software) Macro 24, assigned to Call Type 36 (Register 236) accesses AMNEX on 0-.

800 and 950 ANTI-FRAUD NOTICE
The "0" default in Register 430, Keypad Anti-Fraud Control for 800/900 Calls, when using Macro 3, causes the keypad to remain ON. A setting of "2" causes DTMF anti-fraud to be ENABLED.

NOTE that this is the exact opposite of the program description on page 70 of the Series 5 Manual.

DOWNLOADING
SERIES 5

Whenever you perform an initial download to a Series 5, it is essential that you download the following files **completely** and **in this sequence**:

Dn rate module NPANXXDF
Dn regs & opts XXXX
Dnload site specific block
Burn Ram image to EEPROM

If, for any reason, this sequence is interrupted, the Series 5 will return to default.

NEW DIALING PLAN
"512" AREA

Southwestern Bell Telephone has implemented a new dialing plan in the "512" area in order to meet the growth in South Texas.

Dialing the 512 area code has been optional until now, however, "Permissive Dialing" ends September 9, 1990. All customers in the 512 area code will have to dial `1 plus 512` or `0 plus 512` on all toll calls within the 512 area.

Customers using 4.1.X or 4.2.X software levels do not need to do any additional programming. Series 5 and PAOF customers will need to change dialing patterns at the band level through PNM. Please call Elcotel's Customer Relations Department for any assistance that's required.

"COST-BUSTERS"

CALL 813-758-0389
CUSTOMER RELATIONS/SALES
FOR MORE INFORMATION

SERIES 5 TROUBLESHOOTING

COIN SENSOR

If a Series 5 will not place a 7-digit local call, but allows only "No Coinage" calls such as 911 or information calls, check the coin trigger mechanism. The cause is usually a coin jam or defective coin sensor. When a coin jam is detected, the phone goes into a "no coinage call allowed" mode. Once the jam is cleared, the phone returns to normal operation.

"PAYPHONE SILENT" MESSAGE

On new payphones with 5.1.1 software, during initial installation and download, the PNM operator receives a "Payphone Silent" message. This can be avoided by having the field technician go off-hook, then back on-hook before PNM contacts it.

NOTE: Anytime a battery is connected to a new Series 5 board, go off-hook, then on-hook to ensure proper operation of the payphone.

SOFTWARE RELEASE 5.1.2
(requires PNM 2.0.X)

RECOMMENDATIONS FOR UPGRADING

Elcotel strongly recommends to upgrade your main and auxiliary boards to take advantage of important hardware enhancements. Current boards are coated with a special moisture barrier.

* **If the Main Board has a green PAL, (denoted as U13), upgrade the Main Board.**

* **If the Auxiliary Board has a yellow PAL, (denoted as U11), upgrade the Aux Board.**

To obtain an upgrade please call the Customer Relations Department and request a Return Authorization Number.

AREA CODE CHANGE
NORTH & NORTHEAST TEXAS

The Texas Region is currently informing all 214 customers of the upcoming division of the existing area code. The division will occur November 4, 1990 for 200 northern and northeastern Texas cities. The current area code will be divided into 214 (Dallas metroplex) and 903 (all other cities currently using 214).

For six months after the conversion, a caller dialing 214, followed by a number located in the new 903 code, will be automatically routed to the new number. After an initial 180-day grace period, intercept operators and telephone company recordings will instruct the caller to re-dial and use the new 903 number.

TRAINING CLASS SCHEDULE

The next training class will be held from November 5 - November 9. For more information please call 1-813-758-0389 (x264 or x200).

COIN MECHANISMS AND HOOKSWITCH ASSEMBLIES

Coin Mechanisms: Build-up of dirt and dust on coin mechs can cause the units to fail. DO NOT USE PETROLEUM BASED PRODUCTS (i.e. WD-40) to lubricate them! Using petroleum based lubricants on the Coinco 790 coin mech will cause dirt to collect, resulting in cracks in the plastic stress points. A teflon based lubricant applied sparingly to the joints will help prevent breakdowns. According to Coinco's publication of the 790 model, it says the only servicing needed is an occasional cleaning in hot, soapy water. The Acceptor can be submerged in boiling water, without damage.

Hookswitches: The white plastic arm on the hookswitch at the keypad housing should fit tightly on its retaining bar. Excessive play on this part can cause the hookswitch to close when the phone is bumped. Calls can be lost this way.

These recommendations were sent in by **CRS Communications Corp.** and discovered by **Joe Milano of CRS.** Thanks for sharing this information with everyone. Keep up the good work!

REPAIR BOARDS
LIGHTNING PROTECTORS

When you suspect your board has been hit by lightning or a power surge, it is important to have the LP-1 surge protector accompany the repair board. The LP-1 will be checked and tested for proper operation. If the LP-1 is not checked/tested after a suspected surge the possibility of lightning damage is increased at that site. The testing will be done at no charge if accompanied by the repair board.

If the LP-1 has been blown due to lightning/surges then a new one should be purchased at the cost of $12.00. The LP-1 surge protector is designed to short these surges to ground, but if a close lightning hit is experienced then damage will occur.

EVEREX 920-16B MODEM COMPATIBILITY PROBLEMS

Most Everex modems work well with PNM and MS-DOS. However, the Everex 920-16B Modem appears to be incompatible with an IBM PS-2 Model 30/286 computer. When working with the IBM 30/286 and the Everex 920-16B modem, MS-DOS does not recognize the modem. If you have the IBM 30/286 please consider using a different modem.

REPAIR AND EXPEDITE POLICIES

As of September 18, 1990, the following policies and pricing procedures came into effect:

1. Out of warranty repair $50
2. Out of warranty repair
   Non-Original purchaser $75
3. Product
   three years old or more $100
4. EXPEDITE FEE
   5 days or less turn around time
   per unit $25

SEPTEMBER RATE CHANGES

Below is a listing of the areas that were affected in September 1990. We are generally notified of these changes in advance, so they may not be effective immediately. If you have phones in any of the areas listed below, most updates are simply the addition of a local exchange. Detailed information can usually be obtained from your local PSC/PUC or telephone company.

201; 202; 203; 205; 206; 207; 208; 209; 212; 213;
214; 215; 216; 217; 218; 219; 301; 303; 304; 305;
307; 308; 309; 312; 313; 314; 315; 315; 316; 317;
318; 319; 402; 404; 406; 406; 407; 408; 409; 414;
415; 417; 419; 501; 502; 503; 504; 505; 507; 508;
509; 512; 513; 515; 516; 518; 601; 602; 605; 606;
608; 609; 612; 614; 616; 618; 619; 701; 702; 703;
704; 707; 708; 712; 713; 714; 716; 717; 718; 719;
801; 802; 803; 804; 805; 806; 809; 812; 815; 816;
817; 818; 901; 903; 904; 913; 914; 915; 916; 918;
919

If changes become complex or information about the changes is unavailable, we recommend purchasing new rate files from Elcotel.

ACP "SIX-PACK" & ACCESSORIES

Elcotel is proud to announce the production of the "Six-Pack". It is a custom designed board for the mounting of up to 6 Automatic Call Processors. The pack consists of a backboard, powerstrip, transformers, and 6 RJ-31X jacks. (Includes all associated power and jack wiring.) All that's needed to perform an installation is the correct number of ACP's and the wires that connect the RJ-31X jack to the punchdown block. While the "Six-Pack" makes a very professional looking installation, it denies access to the transformers by enclosing them inside a security cover.

Elcotel is also producing the RJ31-I jack, which identifies the line in use by an indicator lamp. Also being produced is the RJ-11-A adapters. They allow the use of RJ-11 connectors when wiring the ACP (Both may be purchased separately.)

For more information about the products listed above please call the Customer Relations Department at 1-813-758-0389.

SERIES 5
DELAYED MICROPHONE

When editing the payphone master list, using PNM 2.0.0 or 2.0.1, to convert a PCM-3 or PCM-4 entry to a PCM-5 entry, it is necessary to enter a value of "0" in the "blind period" field. The microphone may become delayed up to 20 seconds if nothing is entered in that field. The "blind period" field should only have a value other than "0" when a specific site receives heavy switching noise from the CO. If too high of a value is used, the result is again, a delayed mic.

Please consult Elcotel's Customer Relations Department before using a value other than "0" for the "blind period". This is to ensure the accuracy of its programming.

ACP PRODUCT UPGRADE
ACP-1.5 WITH 9.3.9 SOFTWARE

The ACP-1.5 has all of the features of the ACP-1, with some important enhancements.

* For PBX's with the Reverse Battery Answer Supervision, (most manufactured units have RBAS capability), this new ACP passes on completely accurate assessments of which calls have been completed to the site's Call Accounting System. In hotels, where call charges are passed on to the user at check-out time, an ACP-1.5 gives the site enhanced revenue recovery from the phone users (around 15% of the hotel's monthly telephone bill). In addition, hotel guests are not charged for incompleted calls in which they've waited for more than 8 to 10 rings for someone to answer.

* This ACP offers the support of Elcotel's VDC, Validation and Data Collection services. SMDR can be sent to Elcotel for processing at the time calls are validated. No more billing diskettes and postage fees!

* Provides upgraded collect call prompts, instructing the user to state their name to the person who picks up the phone.

* Handles the "scrambled" calling cards too!

For more information regarding the upgrade cost or the enhancements please call Elcotel's Customer Relations Department.

WASHINGTON-METROPOLITAN EXCHANGE AREA
DIALING PATTERNS

As of October 1, 1990 all local calls originating in the area codes of 202, 301, and 703, that cross area code lines, will require the user to dial all 10 digits. This change is mandatory. All customers in the Washington-Metropolitan Exchange Area need new Rate Center Files due to the dialing pattern change.

For more information or to place an order please call the Customer Relations Department at 1-813-758-0389.
(Ref. April 1990 volume 3 number 1)

ELCOTEL CUSTOMER RELATIONS
TECHNICAL TRAINING

Due to a high cancellation rate of scheduled training, often with no notification, customers are required to submit a one hundred dollar ($100) non-refundable deposit. This must be in the form of either a certified check or money order. Upon receipt of the deposit, the customer's scheduled training class will be confirmed.

This policy is necessary to ensure attendance of training classes and to more accurately assess manpower requirements due to the technical phone and field service support supplied by the Customer Relations Department.

For more information about the training classes contact Jeff Lehman, Customer Relations.

OCTOBER RATE CHANGES

Below is a listing of the areas that were affected in October 1990. We are generally notified of these changes in advance, so they may not be effective immediately. If you have phones in any of the areas listed below, most updates are simply the addition of a local exchange. Detailed information can usually be obtained from your local PSC/PUC or telephone company.

202; 203; 205; 206; 208; 214; 217; 303; 304; 309; 312; 313; 314; 315; 318; 319; 402; 404; 407; 408; 413; 414; 415; 501; 503; 504; 508; 512; 515; 601; 602; 605; 607; 612; 615; 617; 619; 701; 702; 703; 704; 707; 708; 712; 713; 714; 717; 719; 803; 806; 809; 815; 817; 901; 903; 904; 914; 915; 916; 919

If changes become complex or information about the changes is unavailable, we recommend purchasing new rate files from Elcotel.

NEW HOURS
FOR
TECHNICAL SUPPORT

The Technical Support group, which falls under the Customer Relations Department, now has new hours. We will gladly answer any technical questions you may have concerning Elcotel product lines between the hours of 8:30 AM and 6:30 PM (EST). As of December 15, 1990, we will no longer be providing technical support on Saturdays due to the lack of calls.

In observance of the upcoming holidays, we will be closed on the following dates:

    Monday, December 24 - Christmas Eve
    Tuesday, December 25 - Christmas Day
    Tuesday, January 1 --- New Years Day

PLEASE HAVE A SAFE AND HAPPY HOLIDAY SEASON!

WEST VIRGINIA RATE CHANGES

All of West Virginia is in the process of changing from flat rate to measured rate local service, wherein local service for rate centers is priced according to mileage. The conversion will be sporadic but should be completed within the next year. **All 304 customers will need new Rate Center Files or modules as this service becomes available for their exchange.**

TOPICS COVERED BY THE TROUBLESHOOTER

If you have anything you would like to see in subsequent issues of the TROUBLESHOOTER, please give us a call at 813-758-0389 and ask for Laurie at extension # 259 or # 203. Or if you prefer, you can send us your comments or suggestions to:

        Elcotel, Inc.
        6428 Parkland Drive
        Sarasota, Fl. 34243
        c/o Troubleshooter

FAXMATIC 101

The FAXMATIC 101 is a (send only) State-of-the-Art Public Credit Card Facsimile. The FAXMATIC 101 has many features with simple, easy to follow instructions.

The FAXMATIC 101 works with any DTMF (touch tone only) "single party" subscriber or business line. It remains on at all times so that it may automatically transmit its billing data to the data collection computer.

The FAXMATIC 101 performs two levels of validation (on commercial credit cards):

* Internal - The card number is analyzed to ensure that the card is one of the three accepted types (Visa, Master Charge, American Express). Then the expiration date is checked against the FAXMATIC 101's built in calendar/clock to ensure that the card has not expired.

* External - After the Internal Validation is complete the FAXMATIC 101 will access the Validation and Data Collection computer at Elcotel to more completely validate the card.

The FAXMATIC 101 charges by the page and custom charges can be specified in several ways.

For further information about the FAXMATIC 101, call Elcotel's Customer Relations Department at 813-758-0389.

TELEPHONE OPERATOR CONSUMER SERVICES
IMPROVEMENT ACT OF 1990

This "OSP ACT", signed by President Bush in October, establishes a variety of requirements of OSP's and call aggregators for 0+ calls. Among the requirements, are the following:

1. **Double Branding** - The re-seller must identify themselves at the beginning of the call, and once again before the dialed number produces ringback. This gives the end user two chances to hang-up before a charge is incurred, and helps the end user recognize bills coming from that service.

2. **Rate Quotes** - The equipment must be able to quote charges, or a toll free number must be posted on the phone.

If telephone equipment does not comply with these requirements by January 16, 1991, harsh fines could be levied upon the phone owners. Elcotel is making you aware of these issues, and preparing "user definable macros" and special software to comply with these new requirements. This information, and software will be available by January 1, 1991.

SEASONS
GREETINGS
FROM
ELCOTEL, INC.

ELCOTELLER THE TROUBLESHOOTER

NOVEMBER RATE CHANGES

Below is a listing of the areas that were affected in November 1990. We are generally notified of these changes in advance, so they may not be effective immediately. If you have phones in any of the areas listed below, most updates are simply the addition of a local exchange. Detailed information can usually be obtained from your local PSC/PUC or telephone company.

201; 202; 203; 205; 206; 207; 208; 209; 214;
215; 216; 217; 218; 301; 302; 303; 304; 309;
312; 313; 314; 316; 318; 401; 402; 405; 406;
408; 412; 414; 415; 416; 419; 501; 503; 505;
508; 509; 512; 513; 515; 516; 517; 518; 601;
602; 603; 605; 606; 608; 609; 612; 616; 617;
618; 619; 701; 702; 703; 707; 708; 713; 714;
715; 716; 717; 719; 801; 802; 804; 805; 806;
809; 814; 815; 816; 818; 901; 903; 916

If changes become complex or information about the changes is unavailable, we recommend purchasing new rate files from Elcotel.

REPAIR PRACTICES

When an electronics board is sent in for repair, it is part of the testing procedure to perform a "test" download/burn. This is to ensure that there is no problem with that capability. The Repair Department employs a generic Rate Center File for this purpose.

If utilizing the remote download system, it is important to note that the specific rates for the payphone site will be replaced by the generic RCF. Therefore another remote download will be required. To prevent this situation, please remove the EEprom before sending a board in for repair. PLEASE bear in mind that there is a possibility that the EEprom may be the source of your board failure. Substitute a known good EEprom to verify that this is not the case.

PLEASE NOTE: When sending in S-5 boards for repair - it is imperative that the batteries remain attached and plugged in! Many boards are being received in with out batteries and no problem is found. The battery holds the memory in RAM (memory), therefore leaving it PLUGGED IN will help us determine the problem.

NEW DIALING FORMAT MEXICO

Beginning in February 1991, all calls to Mexico, from the United States, will be completed using International Direct Distance Dialing (IDDD) exclusively. Concurrently, area codes 905 and 706, which had been assigned for routing some of these calls, will be made available for reassignment. Calls from the United States to Mexico can be dialed using 011 (international code) + 52 (country code), + eight digits OR 1 + 706 or 905 + seven digits. After February 1, 1991, all calls must use the former dialing sequence.

4.2.6 SOFTWARE ALARM SYSTEM

The number of times the phone will attempt to deliver an alarm to PNM can now be set. In addition, the time period between the "attempts to deliver" can also be programmed in.

Version 4.2.6 Options and Registers provide great flexibility in programming the phone's alarm "call home" attempts. The following sequence of events describes these features:

* Phone's alarm attempts to call PNM and fails
* Tries again (after period of time you set in Register 296)
* If unsuccessful, the phone retries according to the schedule you set.

You can program the phone to try again (number of times set in Register 295), after which it will not make another attempt until a programmable number of hours has passed (set in Register 297). At that time, the phone clears the alarm and -- if the alarm still exists -- the sequence begins again.

For more information on the enhancements available in Release 4.2.6 Software call the Customer Relations Department at 1-813-758-0389.

PNM 2.0.1

The Release of PNM 2.0.1 is especially designed to incorporate features which enhance the operation of Automatic Call Processors with the 1.5 Retrofit (enabling the Reverse Battery option). In addition, this Network Manager supports all current payphone features. The following are some enhancements made since PNM 2.0.0:

* The ACP unit's ID number is "embedded" for monitoring files uploaded to PNM.
* The Communication Screen now shows if any incoming or outgoing calls from units have had alarms.
* PNM can be optioned to disconnect form the unit on manual or auto poll after an adjustable amount of time with no keyboard activity.
* EXPERT EDITOR prompts are more site specific and easier to follow and it also provides three levels of help through the editing process.

If you have any questions on the differences of PNM 2.0.0 and PNM 2.0.1 call Elcotel's Customer Relations Department at 1-813-758-0389.

HAPPY NEW YEAR !