ELCOTEL INC.

Product Bulletin

PAYPHONE ENHANCEMENT SOFTWARE
VERSION 4.2.6

PRODUCT: SERIES 2.5, 3, AND 4
SOFTWARE LEVEL: ALL NON-PAOF
HARDWARE LEVEL: ALL NON-PAOF
DATE: DECEMBER 19, 1990

Enhancement software release 4.2.6 is now available for your non-PAOF equipped Series 2.5, 3, and 4 payphones. This release represents enhancements since the preceding release (4.2.2) in October 1988. Key features of 4.2.6 are:

- Comprehensive enhancement of the Alarm System
- Regulated keypad enabling/disabling, by adjustment of WINK detection.
- Enhancements to handling WINK before and after answer detect.
- Enhanced blocking of 10XXX calls.
- Enhancements to the "Service desk".
- Enhancements to Cash Box collection.
- Enhancement to handset alarm eliminates mic open/close after approximately twenty minutes of conversation.
- Enhancement so International numbers can be dialed the same as end user dials them.
- Enhancement so 1+ IntrA-LATA coin calls can be sent to local call type.
- Enhancements to the recognition of all three S.I.T.
- Response time increased in termination of call, upon recognition of S.I.T. (Special Information Tones)
- Option to allow eight digit calls starting with "1", or any eight digit number can be accepted.
- Option to enable/disable Anti-fraud protection for 911 calls
- Option to allow 10288 0+ IntrA-STATE, and for Inter-STATE the phone will convert the called number into 10288 0-.
- Optional anti-fraud protection
- Dialing patterns are now based on rates
- All Pre-defined Macros are revised to handle double branding requirements.
- Removal of "Transparent Mode".

Additional information regarding enhancements applicable to PCM Software 4.2.6 is detailed on the following pages.

The 4.2.6 Software upgrade is available at $25.00 per set. For additional product information and to place your order please call 1-800-67-SALES (1-800-677-2537).

Revisions to 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.

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.

Option 131 Call home if an Upper Housing Alarm (1) is triggered.
If OFF (the default), and an Upper Housing Alarm is triggered, the phone will flag this alarm and report it when another alarm calls home.

Option 132 Call home if a Handset Alarm (2) is triggered.
If OFF (the default), and a Handset Alarm is triggered, the phone will flag this alarm and report it when another alarm calls home.

Option 133 Call home if a Cash Box Alarm (3) is triggered.
If OFF (the default), and a Cash Box Alarm is triggered, the phone will flag this alarm and report it when another alarm calls home.

Option 134 Call home if an External Alarm (4) is triggered.
If OFF (the default), and an External Alarm is triggered, the phone will flag this alarm and report it when another alarm calls home.

Option 187 Call home if RAM Reload Alarm (5) is triggered
If OFF (the default), and a RAM reload alarm is triggered, the phone will flag this alarm and report it when another alarm calls home.

Register 295   Number of attempts for undelivered alarms.
                When an alarm is triggered (and optioned to call home) the value in this register
                controls how many times the phone will attempt to call home. Once the phone
                reaches the number of unsuccessful attempts specified here, the phone stops trying,
                until the time specified in Register 297 passes, and the alarm re-occurs. Then, the
                process begins again. Default = 5

Register 296   Time between undelivered alarm attempts.
                The value (in five minute increments) entered in this register controls the time be-
                tween call home attempts.

Register 297   Clear alarms in XX hours.
                If the phone was unable to report its alarms, the phone will clear those alarms in the
                number of hours programmed into this register.

Register 298   Time between undelivered SMDR Alarms.
                The value (in five minute increments) entered in this register controls the time be-
                tween SMDR alarm call home attempts.

Option 126   Wink Detect.
                Enables the WINK detection feature on the phone.

Register 231   Duration of Wink.
                Adjusts the minimum size that a loss in loop current has to exist before it will be con-
                sidered a valid wink. (Default "0") Which represents 60 Milliseconds. The value
                entered in this register is multiplied by 30 and added to a base of 60 to attain the
                number of milli-seconds considered a valid WINK.

Option 145   Keypad always on after dialing.
                Allows the user access to the keypad after the destination digits are dialed.

Enhancements to handling WINK before and after answer detect.

Option 179   Terminate call at Wink
                Enables the phone to terminate a call before it is answered, that is when the phone
                recognizes a valid WINK. The phone will provide a "Please dial again" message.
                (Default = OFF) When the phone sees a valid WINK, the keypad will be turned OFF,
                for the duration of the call.

Response time increased in call termination, upon recognition of S.I.T. (Special Information Tones) Terminates calls 15 seconds after a S.I.T. is recognized.

Enhancement in the recognition of all three S.I.T.

In some instances (usually noisy locations) the phone would interpret noise as S.I.T., and terminate the call. This software will mute the mike for 1/3 of a second during the third S.I.T., to ensure that what it is hearing is S.I.T. and not exterior noises.

Enhanced blocking of 10XXX calls.

When using register 869 (10xxx 0-,0+), the phone will block all user dialed 10xxx 01 and 10xxx 011 International calls. For more assistance in the elimination of fraud, a new macro can be used for register 869, macro 9 (10xxx Manual Access) can be used to dial a "#" after the destination number. This will tell the service not to accept any more digits after it recognizes the # sign, but still allow you to enter a credit card number at the appropriate time.

NOTE: Macro 9 "#"may not be compatible with all Central Offices.

Option 197   Do NOT send DTMF "#" after 10xxx 0- & 0- calls
This option can be used to enable or disable this function in macros 8,9,16,17.

Enhancements to "Service desk".

If an end user had a problem with their phone call, they may hang up and dial "0", then realize they should have dialed the service number on the phone, then they would hang up on the operator and dial the service number. But, when the person at the service desk checks the last number dialed, it appears as a "0". The 4.2.6 software will ignore the "0", and give you the call before the "0" was dialed, so proper credit can be given.

Enhancements to Cash Box collection.

When it comes time to empty cash boxes, and you would rather not give your owner bypass to the person who is doing the collections, this feature is for you. You as the owner of the phone assign a number to register 275 (Cash vault alarm bypass number).

Operational Scenario:
1. Collection person walks up to phone, and enters "#" and the three digit bypass you have put into register 275, waits 5 seconds, listens for the message "please dial again" and then hangs up.
2. The phone immediately dials the call home number
3. The collection person pulls the full cash box out, and puts an empty one in.
4. The phone reaches PNM, reports its totals, clears its totals and hangs up.
5. Cash box collection complete.

Note: If the phone cannot report its totals, the cash box total it attempted to report will be stored in a separate area so new totals can be started. Depending upon how the alarms are set, the phone upon connection will report the cash box total of when the box was removed.

Enhancement to handset alarm eliminates mic. open/close after approximately twenty minutes of conversation.

In some areas alarms would attempt calling home during conversation, this caused the earpiece or mike to open and close several times. The alarms have been adjusted to not try calling home while in the conversation mode.

International numbers can be dialed the same as end user dials them.

In 4.2.2 software Call Type register 874)01+ International operator) can be used for International type calls; but, when the end user dials the number, and the phone sends this call to an AOS, the phone will strip the destination number off and dial "0". In this release the phone will dial the destination number exactly as the end user dialed it.

1+ IntrA-LATA coin calls can be sent to local call type.

Option 163   Treat IntrA-LATA calls as local
This option can be enabled to send IntrA-LATA calls over Call Type register 864 (7 digit local), so InteR-LATA and above 1+ coin type calls can be sent to a IXC of choice.

Option to allow eight digit calls starting with "1", or any eight digit number can be accepted.

Option 194   Restrict 8 dig. calls if first digit is NOT "1"
               This option can be used in areas that require "1+7" dialing, and "2-9+7" must be restricted, or this option can be left "OFF", so that all "X+7" calls will be allowed, and priced as "1+7" calls.

Option to enable/disable Anti-fraud protection for 911 calls

Option 199   Disable anti-fraud on 911 calls
               This option can be used to remove anti-fraud protection on 911 emergency calls.

Option to allow 10288 0+ IntrA-STATE, and InteR-STATE calls to be converted to 10288 0-

Option 191   Restrict Inter-state 10288 0+ calls
               When this option is enabled the phone will allow all IntrA-STATE 10288 0+ calls, but all InteR-STATE 10288 0+ calls will be sent to the operator as 10288 0- , for proper screening.

Optional anti-fraud protection

               After the destination number is dialed the phone will be constantly scanning any additional digits dialed, if a dialed digit is detected as a "1" or "0", the phone will suspect you are trying to make a fraudulent call, and the phone will dial an "8". This should break up the dialing pattern, and prevent fraudulent calls.

This feature can be DISABLED by turning Option 198 (Disable anti-fraud digit 8 outpulsing after 0 or 1) "ON".

Dialing patterns are now based on rates:

               10 & 1+10 digit calls below band 16 are typed as call type 4 (local), and above band 30 are typed as call type 5 (Long dist.). Based on option 163 (Treat IntrA-LATA calls as local)(OFF=Call type 5), and ON=Call type 4). In 4.2.2 software dialing patterns were used for routing, now in 4.2.6 dialing patterns are based on rate bands.

Maintenance

Code 960   Transparent Mode (Removed)
               In some instances employees who knew the owner bypass code for a particular phone, would use the "Transparent Mode" to make personal calls, instead of using it to test the phone line. This option by popular demand has been removed, and all "Transparent" type calls must be done using a butt set.