Protel® INC. INNOVATION IS OUR BUSINESS

Pocket Reference
Express 8000 Series

8000PR001.1 [674]

Protel Technical Support: (800) 925-8881

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Resetting a flag (error message, beeping)

Recommended manner to reset a flag:

- Go on hook and then press and hold the program button. Then, come off hook and wait for a beep. Then, press and release the "2" key and hang up.

Warning

- Do not change the chassis assembly or initialize the phone in order to reset a flag. This causes call accounting information to be lost.
- If the chassis assembly must be replaced or reinitialized, be sure to have the phone report in to the computer first (*#2).
- The *#3 reporting command should be used only immediately after initializing the phone.

Common coin line problems

If the phone does not collect and refund properly or if the phone always collects, check the following:

1) Check for reversal of tip and ring. (This is the most common cause.)
2) Verify a good ground connection.
3) Check central office line equipment.

Reminder

Ensure that the lithium battery jumper **JP15** on the chassis assembly is in the "IN" position. The jumper is located on the rear of the chassis assembly.

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Installation Connection Checklist

Make sure all connections pointed out below are properly connected after installing the phone.

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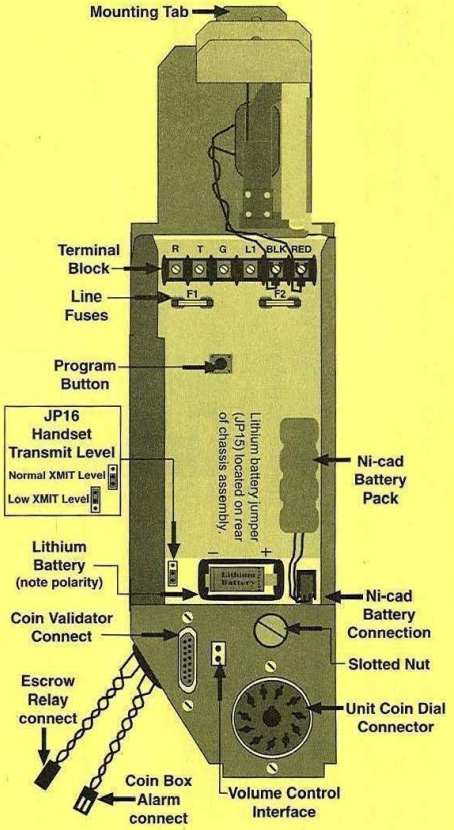
Inside View of Chassis Assembly



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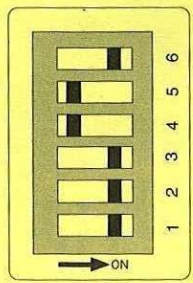
AT&T 22A Switch Settings

Shown below are the switch settings for the AT&T 22A Electronic Coin Validator. For proper operation of the phone be sure to verify that the switch settings on the coin validator match those shown in the diagram.

AT&T 22A Electronic Coin Validator

Switch Settings



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Initialization Card

Use the procedure outlined below to initialize your phones.

Step		
1	**Enter the program mode.**	(Go on hook and press PB1 button. While holding the button in, come off hook. Wait for beep in handset. Release PB1 button.)
2	Dial 0 1 (Coin line) OR 0 0 (B1 line)	_____ ✳ (Listen for beep.) (HAC) NXX-XXXX payphone's telephone no. Including area code.
3	Dial 2 5	_____ ✳ (Listen for beep.) Computer's telephone no. as dialed from the payphone.
4	Dial ✳#3	(Listen for phone to connect with computer. Go on hook. Wait 2 - 5 minutes.)
5	Dial ✳#6	(This verifies the date and time of the last successful download. If the phone goes to dial tone immediately, reinitialize the phone.)

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Page 6 — Reporting Commands

Enter the reporting commands on the keypad to have the phone perform the following actions.

✳#1 XXXX ..... Coin box emptied: Resets the coin box totalizer in the remote PC. The phone reports to the computer that the coin box is empty. XXXX = the "Coin Collection Security Code" provided by the computer operator.

✳#2 ..... General reporting status: Causes the phone to report to the remote computer.

✳#3 ..... Program update: Causes the phone to sound (in the handset) the ANI number of the phone, and to call the remote computer for a complete download. This command works only in the program mode. ***This command should be used only when performing a new installation, when replacing the firmware on the chassis assembly or when replacing the chassis assembly.***

✳#4XXXX ..... Coin box totalizer by voice: Causes the phone to report the value of the coin box totalizer to the phone's handset. XXXX = the "Coin Box Amount Security Code" provided by the computer operator.

✳#5XXXX ..... Reset coin box totalizer: Resets the *voice* coin box totalizer in the phone. XXXX= the "Coin Box Amount Security Code" provided by the computer operator.

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Reporting Commands (continued)

✳#6 ..... Time and date of last update: Causes the phone to sound the date and time of the last successful phone-computer communication.

✳#61 ..... ANI verification: Causes the phone to sound the telephone number that the phone is initialized to.

✳#62 ..... Firmware/software revision: Causes the phone to sound its current firmware revision number. One of the following is sounded after the revision:

"One": operating firmware is in EPROM chip

"Two": operating firmware is in the download chip

✳#64 ..... Flags currently set in phone's memory: Causes the phone to sound voice flag codes for the flags that currently set in the phone. See the "Voice Flag Codes" section of the *Pocket Reference (Pg. 13).*

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Page 8 Standard Troubleshooting Process

These are general guidelines for troubleshooting a Protel phone. Your exact steps may vary depending on the conditions you find at the phone and your level of experience.

1. Physically inspect the phone and components. Fix any obvious problems.
2. Check the error codes and flag codes.
   a. Come off hook and listen for an error code.
   b. Dial a local coin number and listen for an error code. Hang up without completing the call.
   c. Come off hook and dial "*#64" and listen for a flag code.

   NOTE: If you enter the diagnostic mode first, some of the flag codes stored in the phone will be reset.
3. Perform all diagnostic procedures. Use the "Flowcharts Section" of the *Pocket Reference* if there is an error, if there is no dial tone or if you cannot enter the diagnostic mode.
4. See the "Symptoms and Causes" section of the *Pocket Reference*. When you have a set of symptoms but just can't put your finger on the cause, this section will help you pinpoint the trouble.
5. ALWAYS perform your standard company operational test before leaving the site. Also, perform all of the diagnostic procedures.

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Voice Error Messages

Error numbers are sounded in the handset when these conditions are detected by the phone.

- ● = Phone Hardware Related. Troubleshoot the phone.
- ▲ = Programming Related. Recreate the error & confirm programming with computer operator.
- ■ = User Error. Recreate the error & confirm programming with computer operator.

● **Error 1** **Ram Error -** Phone detected a discrepancy in the RAM checksum. Phone must be reinitialized.
● **Error 2** **Relay Jam -** Phone detected an error with the operation of the escrow relay.
● **Error 3** **ESC I Failure -** *N/A (6000 Chassis Only)*
● **Error 4** **ECS II Failure -** *N/A (6000 Chassis Only)*
● **Error 5** **ECS II Gate Failure -** *N/A (6000 Chassis Only)*
● **Error 6** **Key/Card Inactivity -** Handset off hook more than 25 sec. with no keypad or card reader activity
▲ **Error 7** **Invalid Speed Dial -** User pressed an unprogrammed speed dial button.
■ **Error 8** **Invalid Key Press -** Phone detected a key press that is invalid in the sequence of pressed keys.
▲ **Error 9** **Invalid Speed Dial -** The number programmed for the speed dial key pressed is not a valid number.
▲ **Error 10** **Volume Control Error** - Volume control using "#" is disabled (Opt. 117).
■ **Error 11** **Dialed Digits "11"** - The first two dialed digits are "11." This is an invalid sequence of dialed digits.
■ **Error 12** **Equal Access # NG** - User dialed a 10XXX number and then dialed "1."
▲ **Error 13** **Coin Call Denied** - User dialed a restricted number. The "Over Time Period" in the Rate Band = "0."
■ **Error 14** **User Didn't Pre-Pay** - Phone is programmed for continuous ground line and user didn't deposit enough coins before dialing local No.

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Voice Error Messages (continued)

▲ **Error 15 Card Route NG** - The intralata route to be used for this type of call is not configured.

■ **Error 16 No Answer or Busy** - Call was not answered or busy & handset stayed off hook longer than expected.

▲ **Error 17 Store & Forward Limit** - User made a Store & Forward or a Super Collect call and the time limit for the call expired.

▲ **Error 18 Initial Period Time Out** - The initial time period for the call expired and no over time is granted.

▲ **Error 19 Over Time Expired** - The over time period set up for the call has expired.

● **Error 20 Insufficient Deposit** - Phone did not detect required over time deposit.

● **Error 21 Over Time Rate Error** - The phone has detected an error in the calculated overtime rate for the call.

● **Error 22 Call Rate Error** - The phone has detected an error in the calculated rate for an operator assisted call.

● **Error 23 Answer Not detected** - The phone didn't detect loop reversal to indicate an answer when it expected to.

■ **Error 24 Collect Call Refused** - Called party did not accept the Super Collect call.

▲ **Error 25 Route Not Programmed** - The alternate route to be used for this type of call is not configured.

▲ **Error 26 Call Denied** - Card call or international number was dialed and phone is set up to deny this type of call.

■ **Error 27 Program Mode Error** - The program mode access code "100001XXXX" was entered incorrectly.

● **Error 28 EPROM Error** - The phone detected a discrepancy in the calculated checksum of the EPROM.

▲ **Error 29 Invalid Speed Dial** - The user pressed an unprogrammed speed dial button.

● **Error 30 Stuck Key** - The keypad has a stuck key or the user pressed a key for too long.

▲ **Error 31 IXC Not Selected** - IXC button not pressed when phone expected it or button is not set up with an IXC code.

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Voice Error Messages (continued)

- **Error 32 Reporting Error** - Phone detected one of the following conditions during a "*#X" reporting attempt.
  a. Program button was down during attempt to report.
  b. Too much time passed before "Reporting" security code entry.
  c. The "Reporting" security code is not programmed in phone.
  d. 4-digit security code entered at keypad did not match the code programmed in the phone.
- **Error 33 Keypress Time-out** - The phone expected a keypress and a keypress did not occur.
- **Error 34 Invalid Number Dialed** - User dialed an invalid PBX code ("0" or "1") or 10-digit 976-XXXX number.
- **Error 35 Invalid Number Dialed** - The user dialed either a 1-900 phone number or an invalid area code.
- **Error 36 Invalid Number Dialed** - Office code of the 0+ or 1+7 digit number dialed is not found in the NXX table.
- **Error 37 Card Group Denied** - The cost band used to process the call does not have a route number programmed.
- **Error 38 Card Group Denied** - The cost band used for the call is set up to deny this call. ["Ovt Period = 0"]
- **Error 39 Coin Mech/Relay NG** - *N/A (6000 Chassis Only)*
- **Error 40 No Coin Deposit** - The phone did not detect deposited coins when it expected to.
- **Error 41 IXC Button NG** - The interexchange button pressed by the user has not been programmed.
- **Error 42 International No. NG** - The user has dialed an invalid international phone number.
- **Error 43 No IXC Button Pressed** - User did not press and IXC button when the phone expected one to be pressed.
- **Error 44 End of the Price Quote** - User dialed *0 for price quote of last call & did not hang up after the quote ended.
- **Error 45 Coin Gate Failure** - *N/A (6000 Chassis Only)*

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Voice Error Messages (continued)

- **Error 46 Coin Track Failure** - *N/A (6000 Chassis Only)*
- **Error 47 ECS Failure** - *N/A (6000 Chassis Only)*
- **Error 48 Incoming Call Denied** - The phone has been set up to deny incoming calls.
- **Error 49 Call Denied** - Phone is set up to deny calls placed to this destination number.
- **Error 50 Call Denied** - Incoming call or coin call was made during a time that the phone is set to deny these calls.
- **Error 51 Coin Mech Failure** - Phone is not correctly detecting deposited coins (Incorrect coin frequencies).
- **Error 52 Feature Group D Rest.** - The Feature Group D code (10XXX) entered is invalid.
- **Error 53 Debit Card Error** - Unable to debit the required amount from the debit card.
- **Error 54 Loop Reversal Restrict** - Phone detected loop reversal & is programmed to restrict local & 1+ coin calls.
- **Error 55 Opto Coupler Defective** - Phone detected an opto coupler hardware failure & will restrict coin calls.
- **Error 56 Destination Number NG.** - Phone did not find a match in the valid destination number table.
- **Error 57 Too Few NPA Tables** -Phone couldn't find enough tables to assign a cost band number (NANP).
- **Error 58 Too many NPA Tables** - The phone determined too many 100-byte tables assigned (NANP).
- **Error 59 No NPA located in tables** - The phone could not locate the desired NPA in its database (NANP).
- **Error 60 Range outside limit** - The calculated range is outside of the NPA/NXX limit (NANP).
- **Error 61 Coin Tone Fraud** - The phone detected coin tones generated outside the payphone.

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Voice Flag Codes (*#64)

Listed below are definitions of voice codes that may be sounded in the handset by dialing the *#64 reporting command. Only those flags currently set in the phone are sounded in the handset. These flag codes indicate specific operating conditions with the payphones and are normally reported to the computer during polling.

Numeric Code	Flag Code	DESCRIPTION
00	E$	**Cash Box Emptied (*#1):** The cash box of the phone has been emptied. The repair person reported this information to the computer by entering the reporting command *#1 at the payphone keypad or by activating the vault alarm switch.
01	ST	**Status Check (*#2):** A repair person entered the reporting command *#2 (General Reporting Status) at the phone keypad. This command causes the phone to call the computer and report the details of calls that have been made on the phone since the last time the phone communicated with the computer. The phone also verifies that the costing/options information stored in the phone is up to date and if necessary requests a download of costing/options information from the computer.

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Voice Flag Codes (continued)

02	PR	**Phone Repair (*#3):** A repair person entered the reporting command *#3 (Program Update) at the payphone keypad. This reporting command causes the phone to call in to the computer and request a download of costing/options information to program or reprogram the phone.
03	PC	**Peg Count:** Number of calls made is equal to the number specified in the field labeled "Peg Count/Inactivity" in the Options & Registers record used by the phone.
04	$V	**Cash Box Volume Reached:** Volume of coins in cash box reached the percentage (%) full programmed for the phone to report. See the field labeled "cash box volume" in the Options & Registers record used by the phone. Coin box should be emptied at this time.
05	RE	**Ram Error:** An error was detected in RAM used for storing costing/options information. To correct this situation, poll the phone. If this flag does not reset, reinitialize the phone. If the flag still does not reset, replace the chassis assembly.
06	RJ	**Relay Jam:** The coin relay is not operating properly. Possible causes are a stuck coin, faulty coin signal unit, faulty coin relay, or faulty circuitry on the chassis assembly. To correct this situation, check for stuck coins, stuck relay, or faulty relay connections, and perform a relay diagnostic test.

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07	LR	**Loop Reversed:** The tip and ring wires connected to the phone are reversed. Swap tip and ring and perform the "Loop Polarity" diagnostic test.
10	VE	**Coin Box Volume Error:** An error was detected in the coin box volume percentage reported to the computer. To correct this situation, have the technician empty the coin box and use the *#1 reporting command [Cash Box Emptied] if a vault door alarm switch is not present. If this flag does not reset, replace the chassis assembly.
11	$E	**Coin Total Error:** An error was detected in the non-resettable coin totalizer in the phone. To correct this situation, poll the phone. If this flag does not reset, reinitialize the phone. If the flag still does not reset, replace the chassis assembly.
12	TE	**Resettable Coin Totalizer Error:** Error was detected in the "amount to date" reported to the computer. To correct this situation, poll the phone. If flag does not reset, reinitialize the phone. If flag still doesn't reset, replace the chassis assembly.
13	BE	**Box Amount Error:** Error was detected in the "coin box amount" totalizer. The "coin box amount" reported to the computer may not be accurate. To correct this situation, have technician empty the coin box and use the *#1 reporting command [Cash Box Emptied]. If this flag does not reset, reinitialize the phone. If the flag still does not reset, replace the chassis.

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Voice Flag Codes (continued)

14	OE	**Overcharge Memory Error:** The amount deposited was more than amount charged. To correct this situation, poll phone. If this flag does not reset, reinitialize the phone. If the flag still does not reset, replace the chassis assembly.
15	AE	**Accounting RAM Error:** An error was detected in the RAM used for call accounting. The information received from the phone may not be accurate. To correct this situation, poll the phone. If this flag does not reset, reinitialize the phone. If the flag still does not reset, replace the chassis assembly.
16	CL	**Billing CDR Limit Reached:** The number of Store & Forward calls made on the phone is equal to the number of calls specified in the field labeled "Number of Billable CDR Records before Reporting" in the Options & Registers record used by the phone.
17	CF	**Billing CDR Full:** There have been 52 Store & Forward calls made on the phone and the call detail records for these calls have not yet been transferred to the computer. The Store & Forward records must be reported to the computer and the Store & Forward call counter must be reset before the phone will allow any further Store & Forward calls.
21	$F	**Coin Box Full:** The volume of coins in the coin box has reached 100 percent. The coin box must be emptied to reduce the possibility of coins becoming jammed.

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22	CG	**Coin Gate Failure -** *(6000 Chassis Only!)*
23	DE	**Inactivity:** The payphone did not see coins deposited in 10 consecutive attempts to process a call. This flag is automatically reset once a coin call is completed.
24	ME	**Coin Mech Error -** *(6000 Chassis Only!)*
25	TR	**Time Report:** The payphone has reported in to the computer during the "Remote Reporting Time." specified in the Options & Registers record used by the phone.
26	NE	**Audit CDR Error:** An error was detected in the data of the non Store & Forward call detail records (CDR) received from the phone. The records received from the phone may not be accurate. To correct this situation, poll the phone. If this flag does not reset, reinitialize the phone. If the flag still does not reset, replace the chassis assembly.

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Voice Flag Codes (continued)

27	CE	**Billing CDR Error:** An error was detected in the Store & Forward call detail records (CDR) stored in the phone. The information transferred to the computer may not be accurate. To correct this situation, poll the phone. If this flag does not reset, reinitialize the phone. If the flag still does not reset, replace the chassis assembly.
30	LB	**Low Battery:** The chassis assembly detected that the voltage of the ni-cad battery is low and that the battery is in the process of being charged. If this flag reoccurs, replace the battery and test the incoming line for proper current and voltage, test relay and coin signal unit.
34	HO	**Handset Off Hook:** The handset was left off hook with no activity for approximately 15 minutes. To correct this situation, If this flag gets reported while the handset is on hook, check the hookswitch for proper operation.
36	LA	**Lower Alarm:** The lower housing (coin box) door was removed or the inside vault switch was activated.
37	HG	**Handset Gone:** There is improper resistance of the handset receiver. The handset may be missing or have defective/incorrect wiring. To correct this situation, check wiring or replace the handset or chassis assembly.

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40	NF	**Audit CDR Full:** The number of non-card CDR records stored in the phone is at the maximum (500). This information should be transferred to the computer.
44	BG	**Bad Ground -** *(Coin Line Only)*: The phone failed to detect a refund or collect signal on four successive calls. Check the phone ground wiring and central office card for proper operation. This flag is reset after the phone successfully detects a collect or refund signal from the central office.
45	CR	**Clock Reset:** The date and time in the phone has been reset due to a power-on reset condition.
46	EE	**EEPROM Error:** The program stored in EEPROM within the payphone is corrupted. To correct this situation, poll the phone. If this flag does not reset, reinitialize the phone. If the flag still does not reset, replace the chassis assembly.
47	TG	**Trouble Gone:** A previously reported relay jam condition has cleared itself.
50	OC	**Opto-Coupler-** *(Coin Line Only)*: A collect/refund hardware failure occurred in the phone. If this conditions continues to reoccur, replace the chassis assembly.

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Voice Flag Codes (continued)

51	BR	**Box Removed:** The coin box was removed from the phone during a time that is other than during the active coin box removal window. Specify if this flag should automatically be reported to the computer if it becomes set in the phone. that is other than during the active coin box removal window.
52	RR	**Relay Refund:** There is a problem with the escrow relay's refund function. This flag will be set if the phone makes three consecutive unsuccessful attempts to refund coins. Check for stuck coins, stuck relay, or faulty relay connections, and perform a relay test.
53	RC	**Relay Collect:** There is a problem with the escrow relay's collect function. This flag will become set if the phone makes three consecutive unsuccessful attempts to collect coins. Check for stuck coins, stuck relay, or faulty relay connections, and perform a relay test.
54	SN	**Silicone Ser #: (7000/9000 Phones Only)**
55	BM	**Box Missing:** The coin box has been missing from the phone for at least 15 minutes. If this flag is set while the coin box is present, check the vault alarm switch for proper operation.
56	DI	**Dial Inactive:** The handset came off hook "X" number of times without the call ever getting to the cut-through point (phone dialed out and the transmitter/receiver turned on.). The value of "X" is be specified in the field labeled "Peg Coin/Inactivity."

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Diagnostics Procedures

These tests may be used to verify proper operation of the hardware components of the phone and should be performed at the time of installation, after the phone has been initialized, and when troubleshooting the phone. If a diagnostic test fails, use the flowcharts that follow this section to troubleshoot the phone.

- **Entering the Diagnostic Mode .....** Enter program mode and then dial **[9]** (pause) **[0]** (pause) **[2]** (pause).
- **Keypad Test .....** Press each key except **[*]** for voice verification (in handset) of the pressed key. Speed dial keys results in "***81***," "***82***," etc. sounded in the handset.
- **Coin Recognition Test .....** Each coin deposit results in voice verification to handset.
- **Escrow Relay Test (Refund) .....** Deposit coin, dial **[*] [1]**, voice prompt = "***Refunding***," coin returns.

  (Collect) ..... Deposit coin, dial **[*] [2]**, coin is collected by phone.

  [*Failed*] - Two beeps sound in handset.

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Diagnostics Procedures (continued)

- **Loop Polarity Test** ..... Dial **[*] [3]**. If tip & ring are properly connected, voice prompt sounds "***Thank you***."

  [*Failed*] - Warble tone in receiver means tip & ring are reversed or loop current from C.O. is not detected by phone.

- **Alarm Switch Test** ..... Coin box or vault door removal results in bong tone. (Must have the optional alarm installed.)

- **Coin Ground Test** ..... Deposit coin, dial **[*] [4]**, money in escrow is refunded.

  (Coin Line Only!)

  [*Failed*] - Voice prompt "***Error***" sounds in handset. Check ground wiring and/or C.O. line card.

  Two beeps indicate a bad relay.

- **Exiting the Diagnostic Mode** ..... Dial **[*] [#] or hang up** to exit diagnostic mode. Three beeps are sounded in the handset if "*#" is used to exit diagnostic mode.

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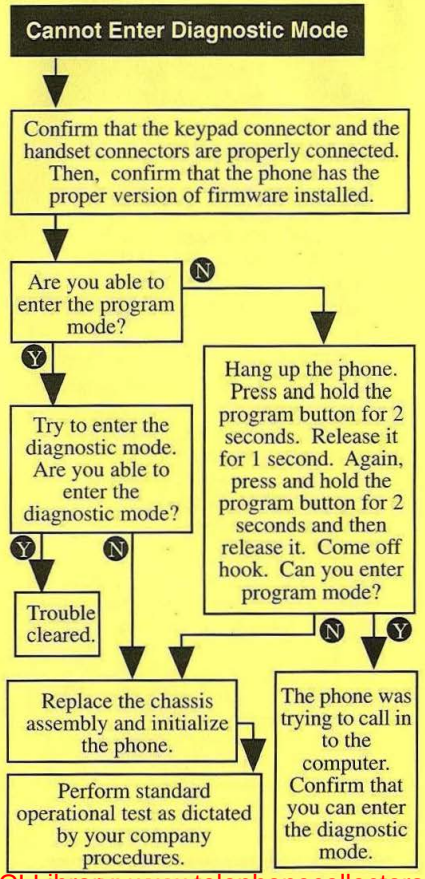

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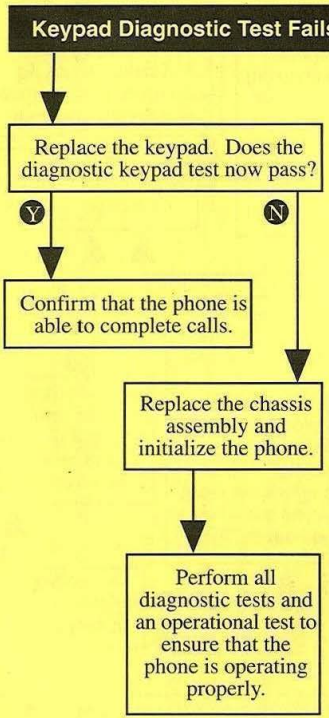

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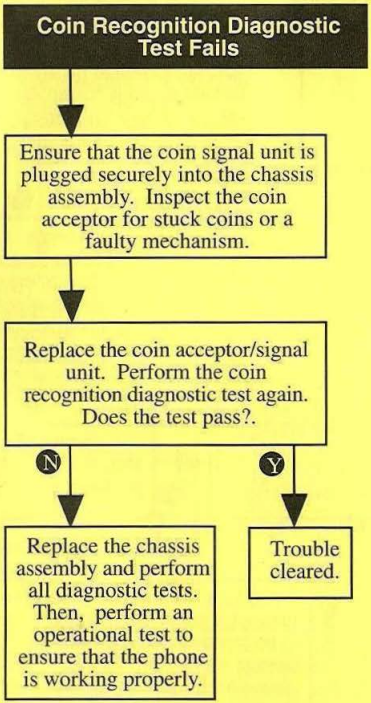

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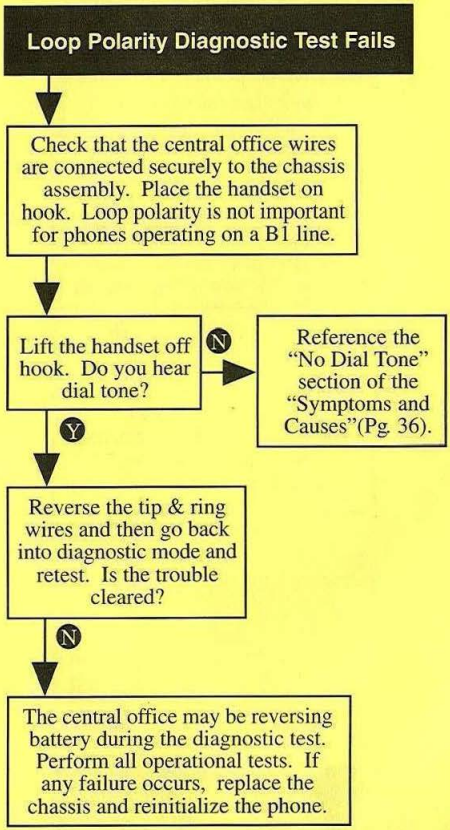

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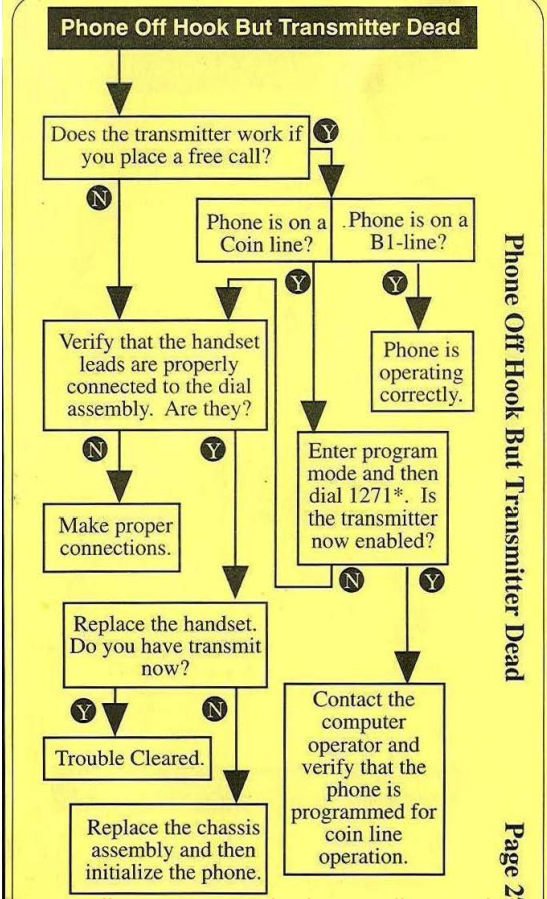

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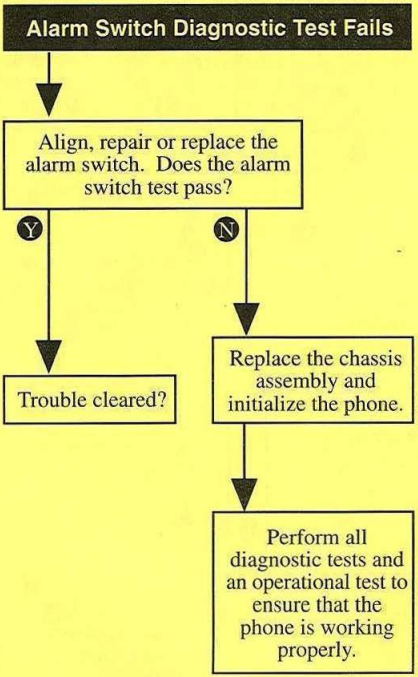

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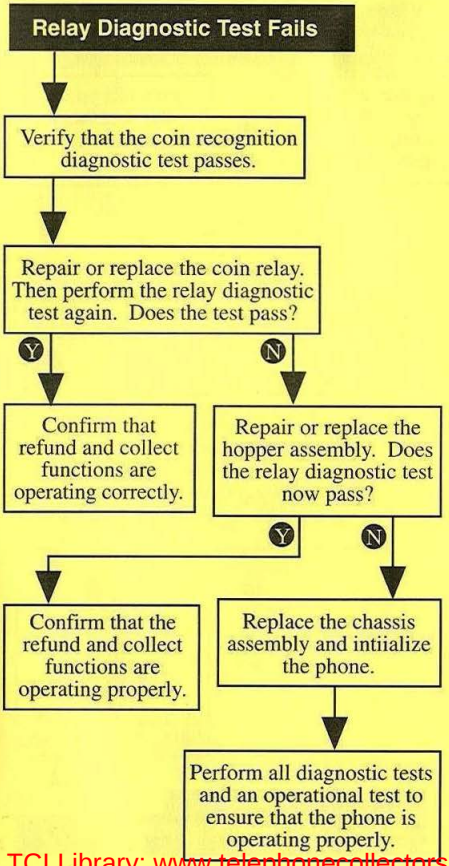

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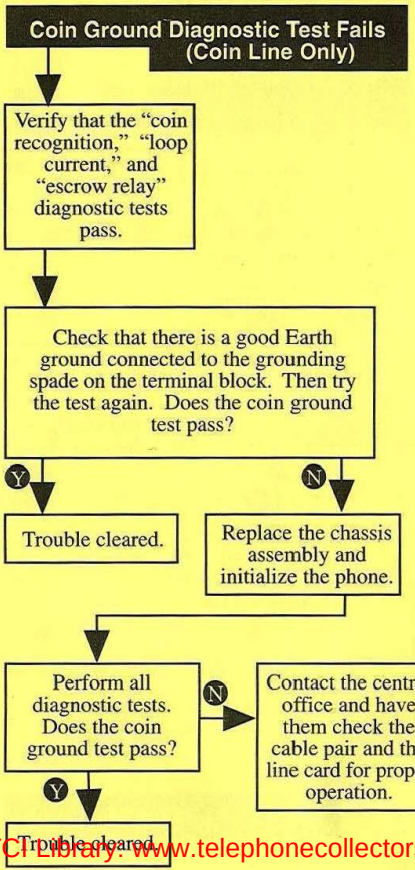

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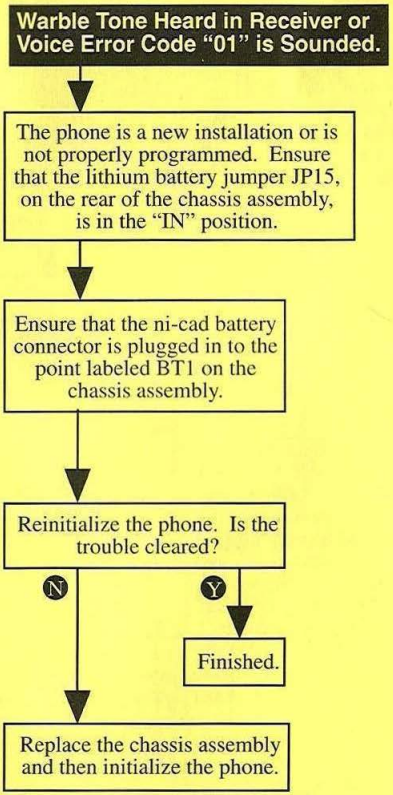

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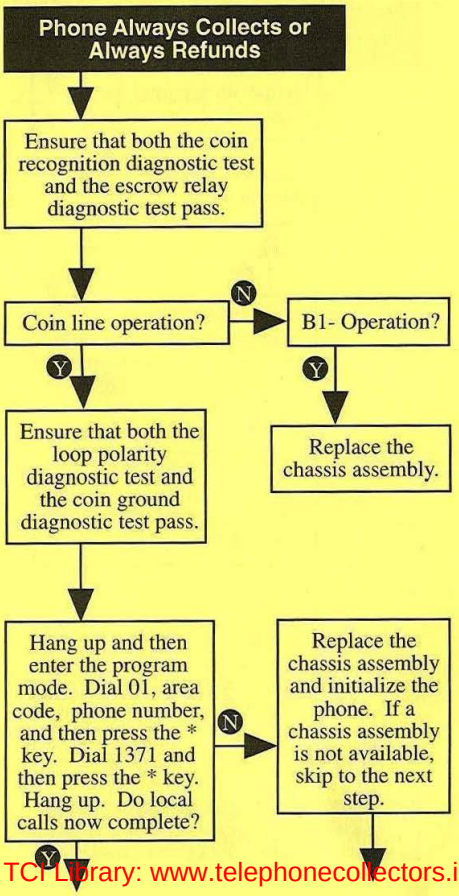

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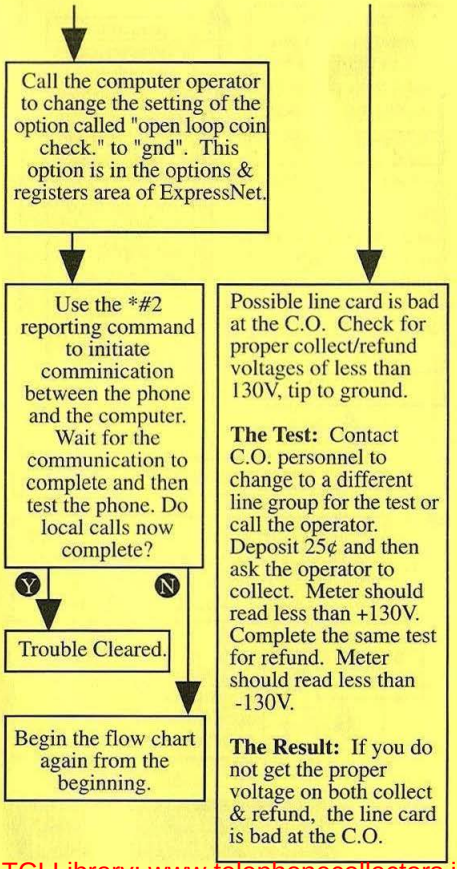

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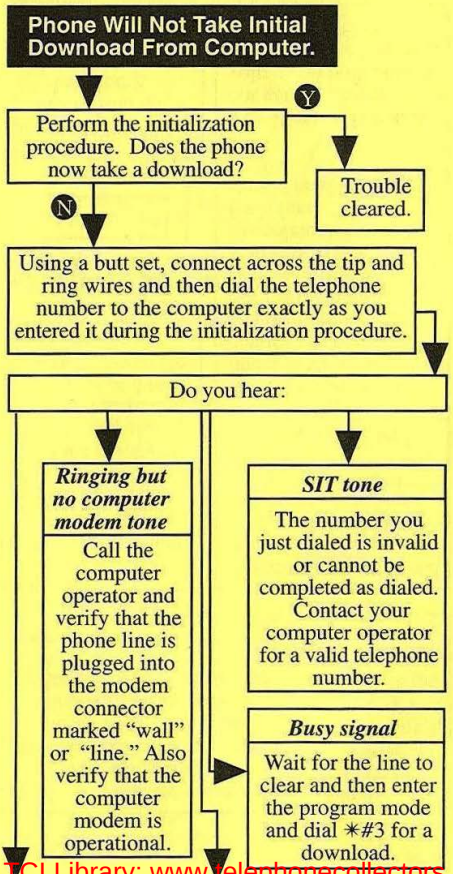

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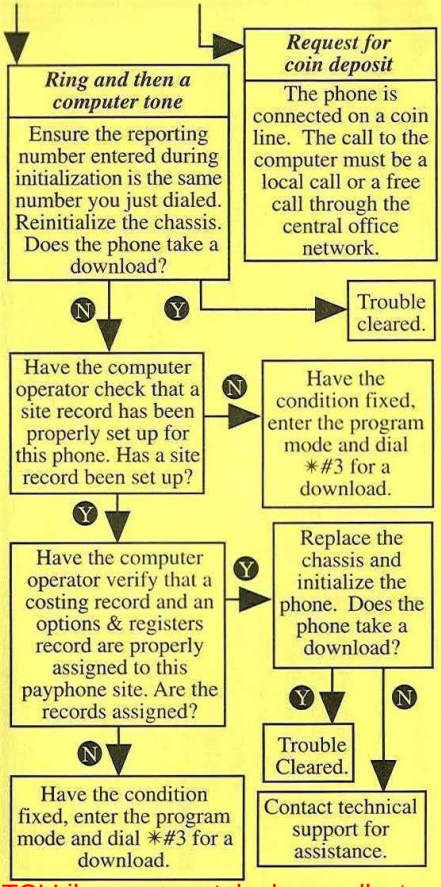

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Symptoms and Causes

When you have a set of symptoms but just can't put your finger on the cause, use this section to help you pinpoint the trouble.

NO DIAL TONE - PROBLEM TYPE I (B1 or Coin Line)

- No dial tone heard in the receiver.
- Keypad is active (DTMF tones heard).
- Keypad is still active after being off hook for 15 seconds.
- Reporting command "*#64" results in error code 56 (dial inactivity) to be sounded in handset.

Remarks

a. The chassis assembly detects central office loop current.
b. The handset receiver works properly.
c. The keypad works properly.

MOST PROBABLE CAUSES

1. The central office has taken the line out of service.
2. Faulty chassis assembly.

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NO DIAL TONE - PROBLEM TYPE II (B1 or Coin Line)

- No dial tone,
- Keypad goes dead 12 seconds after the phone is taken off hook.
- "*#64" may cause the phone to sound error code 56 (dial inactivity) in the handset.

Remarks

a. The chassis assembly does not detect loop current.

MOST PROBABLE CAUSES

1. Fuses blown on chassis assembly.
2. Central office tip and ring are shorted or open.
3. Faulty chassis assembly.

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NO DIAL TONE - PROBLEM TYPE III (B1 or Coin Line)

- No dial tone in receiver.
- No response from the keypad.
- No side tone.
- After disconnecting & reconnecting the keypad cable, the phone works properly.
- The phone may have reported the "HO" flag (handset off hook) to the computer.

Remarks

a. Something in the upper housing is making the chassis assembly go off hook.
b. After two minutes, the chassis assembly automatically powers down.
c. When the keypad/hookswitch cable is disconnected and then reconnected, the phone powers up and operates correctly.

MOST PROBABLE CAUSES

1. Faulty keypad/hookswitch assembly.
2. Pinched wire in upper housing.
3. Check volume control and coin box alarm wiring.

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NO DIAL TONE - PROBLEM TYPE IV (B1 or Coin Line)

- No dial tone.
- No response from keypad.
- No side tone.
- The phone still does not respond after disconnecting then reconnecting the keypad/ hookswitch cable.

Remarks

a. Chassis assembly is dead.

MOST PROBABLE CAUSES

1. The volume control button is shorted to the upper housing.
2. The coin box alarm switch is shorted to lower housing.
3. Both the ni-cad and lithium batteries are dead.
4. Faulty chassis assembly.
5. Faulty keypad/hookswitch assembly.

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CALL PROCESSING - PROBLEM TYPE I (B1 Line)

- Cannot break dial tone when digits are pressed.
- Can enter program mode.
- Passes diagnostic keypad test.

Remarks

a. Chassis is not muting receiver after the first digit is dialed.

MOST PROBABLE CAUSE

1. Faulty chassis.

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CALL PROCESSING PROBLEM TYPE I (Coin Line)

- Sometimes the phone does not process calls. Several digits may be dribbled out and then the phone may sound "error code 13".
- Some dialed telephone numbers always complete.

Remarks

a. The phone is not receiving all of the dialed digits from the keypad.

MOST PROBABLE CAUSE

1. Faulty keypad assembly.
2. Faulty chassis assembly.

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CALL PROCESSING PROBLEM TYPE II (Coin Line)

- The central office intercept message tells you that the call requires a coin deposit.
- The deposit is refunded by the central office when the phone is hung up.
- The phone passes the loop polarity (*3) & coin ground (*4) diagnostic tests.

Remarks

a. All ground connections are good.
b. Tip and ring are not reversed.
c. The central office does not detect a coin ground during the open loop coin check.

MOST PROBABLE CAUSE

1. Open switch intervals (probably caused by SLC equipment) is fooling the chassis. Verify by entering the program mode and dialing: 6-0-7-5-0-0-0-0-0-0-0-0-0-2-0-0-1-* Retest the phone. If the problem is fixed, have the computer operator change cost band 75 "Int Time" to a setting of "20" and the "Ovt Time" to a setting of "01."
2. The central office coin detect card is faulty.
3. The central office is programmed for continuous ground operation.

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CALL PROCESSING PROBLEM TYPE III (Coin Line)

- Sometimes a call never completes.
- When using a butt set, you must stay on-hook for at least 4 sec. to get a new dial tone.
- The central office is probably a DMS-10 or DMS-100.

Remarks

a. If the C.O. loop is reseized while the C.O. is in the process of collecting/refunding or doing a coin clean-up routine, dial tone will not be returned. The phone must stay on-hook until the C.O. has completed it's coin control routine.

CALL PROCESSING PROBLEM TYPE IV (Coin Line)

- When the phone is processing local or long distance calls, there is about 10 seconds of AC ground noise. The phone shuts down.

Remarks

a. Extreme levels of AC ground noise caused the loop current detector in the phone to detect that the central office loop went open after about 12-seconds.

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CALL PROCESSING - PROBLEM TYPE V (B1 Line)

- Dial tone is not broken when digits are pressed on the keypad.
- Cannot enter program mode.
- Cannot hear DTMF tones in the receiver.

MOST PROBABLE CAUSE

1. Faulty keypad assembly.
2. Faulty chassis assembly.

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REFUND/COLLECT - PROBLEM TYPE I (B1 or Coin Line)

- The phone reported the "RJ" flag (relay jam) to the computer.
- The coin relay refunds and collects coins.
- A beep is heard in the handset each time the phone fires the relay.
- The relay always operates twice.
- The reporting command "*#64" sounds error code "06" (relay jam) in the handset.
- The diagnostic relay test fails (fires twice).

MOST PROBABLE CAUSE

1. Damaged coin relay.
2. Faulty chassis assembly.

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REFUND/COLLECT - PROBLEM TYPE II (B1Line)

- Coins default to collect/refund (18-second delay) after making a local call.
- Passes diagnostic relay test.

Remarks

a. Chassis assembly may be programmed for coin line operation (check with the computer operator.)

MOST PROBABLE CAUSES

1. Chassis assembly is programmed incorrectly.
2. Chassis assembly is bad.

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REFUND/COLLECT PROBLEM TYPE III (B1 Line)

- The coin relay does not operate correctly.
- The coin relay diagnostic test fails.
- The phone sounds the message "Please wait two minutes" and then restricts calls after each attempt to fire the relay.

MOST PROBABLE CAUSES

1. Low central office loop current.
2. Faulty ni-cad battery.
3. Faulty chassis assembly.

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REFUND/COLLECT PROBLEM TYPE IV (Coin Line)

- The phone will not collect or refund deposited coins. It always defaults after 18 seconds.
- Local calls can be completed.
- The phone may ask for a local rate deposit when a long distance call is dialed.
- The phone passes diagnostic "Loop Polarity" test but fails the "Coin Ground" test.

Remarks

a. The phone is not detecting a valid collect/refund pulse from the central office.
b. The central office tip and ring are not reversed.

MOST PROBABLE CAUSES

1. The central office loop is being treated with a 5A-REG Unit. (Have it changed to an 8A-REG Unit.)
2. The central office is a DMS-10 or DMS-100 operating on a SLC.
3. The ground is marginal.
4. The chassis assembly is faulty.

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REFUND/COLLECT PROBLEM TYPE V (Coin Line)

- The central office intercept message always reminds you that the number you dialed requires a coin deposit.
- The phone waits aproximately 18 seconds and then collects or refunds the deposit.
- The phone fails the diagnostic "Loop Polarity" test and the "Coin Ground" test.
- Six seconds after coming off hook, dial tone is interrupted by two short beeps.
- The phone is not located close to the central office.
- The operator cannot return or collect coins.

MOST PROBABLE CAUSES

1. Tip and ring are reversed.

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