



OPERATOR INTERFACE PRODUCTS APPLICATION NOTE

Subject: Password Retrieving Out Of A Xycom Terminal

AN# 1015A

Date: 11/5/86

Name: Stephen Copelin

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Description: Retrieving The Password Out Of A Xycom Terminal

Introduction:

From Time to time it is possible to forget, loose or enter an unknown password into a terminal. Once this happens, you are locked out of the unit until this password can be acquired. The purpose of this note is to help the user recover from this problem with the minimum amount of difficulty. I have outlined here 4 different methods for doing this.

- I. Directly from keyboard. (This will not work with OIL units).
 - A. Unit must be in FULL Duplex for this method to work.
 - B. Connect Xycom external keyboard to the terminal.
 - C. Connect TRANSMIT DATA to RECEIVE DATA on communications port by one of the following methods.
 1. Install Xycom loopback connector (P/N 88021-001)
 2. Short pin 3 to pin 2 on the main serial port. (always on the main controller

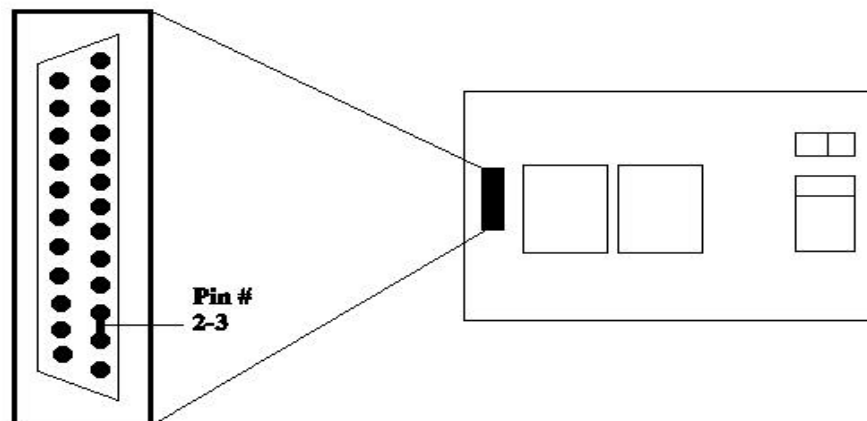


Figure 1

3. board - not option board). Hint: a paper clip works well for shorting
If an external comm module is being used on the serial port (ie 20mA or RS-422), disconnect this port and goto step 2.



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D. Enter one of the 'Return Password' sequences via the keyboard

1. Hazeltine 1500 emulation type <~><%>.
2. ANSI emulation type <esc>[20p (esc = escape key)
Do not type the < > characters -

-Note:

E. The password should now be printed onto the screen.

II. The TAB STOP method.

A. Remove the option board on the terminal.

1. Use proper static protection.
2. Remove standoffs holding the option board in place.
3. Remove the option board carefully.

B. Verify that there is base firmware on the controller board.

1. 28 pin chip labeled 90417-XXX. (X=don't care)
2. If there is no firmware here, you can not use this method.

C. Power up the terminal.

1. Select the SET TAB STOPS option from the menu.
2. Change a couple of TAB STOPS near the beginning.
3. Exit SET TAB STOPS.

D. Reinstall option board.

E. Power up the terminal and the password should be gone.

III. By reading it through a host system.

A. Preface

To make this method as general as possible and still be useful, this preface is provided to explain the principle involved in getting the password out. The idea is to send to the terminal's serial port the command to return the password (<esc>[20p for ANSI and OIL units or ~% for HAZELTINE). Once this is done, you must receive the data being sent out by the terminal. Sounds simple enough, however there are several things which can interfere with your success.



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B. Problems

1. Baud Rate (300-19.2k)
 - a) Shipped set for 9600 baud. If you changed this the host will have to reflect the change.
2. Handshaking
 - a) Disable Handshaking on the host.
 - b) Loop RTS to CTS on terminal (pins 4&5)
3. Data bits (7 or 8)
 - a) Shipped with 8 data bits configured. If you changed this the host will have to reflect the change.
4. Parity
 - a) Shipped disabled. If you changed this the host will have to reflect the change.
5. Transmitting/Receiving from/to the host.
 - a) You will have to figure out from your system how to send data to the terminal.
 - b) You will have to figure out from your system how to receive data from the terminal.

C. Example INDUSTRIAL BASIC II program

```
10 SCONFIG (0,0,8,&H00,8): 'Configure port
20 SSELECT (0,0):          'Select the configure port
30 ANSI$=CHR$(27)+'[20p': 'Command to return password
40 SPRINT ANSI$;:          'Send command to terminal
50 SINPUT PASSWORD$:      'Read serial input channel
60 PRINT PASSWORD$:       'View password
```



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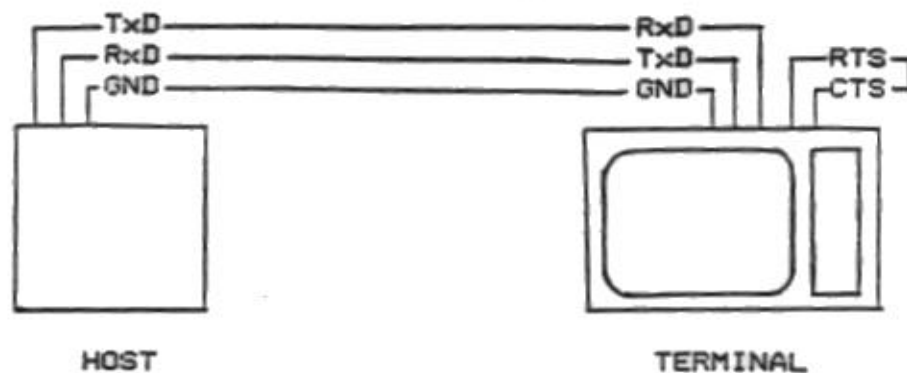


Figure 2

- IV. Hardware method.
- A. Last resort!!! Do not use unless absolutely necessary.
 - B. Unplug unit.
 - C. Remove cover from unit.
 - D. Remove option board if present.
 - E. Short pin 4 to pin 5 of U29 on controller board.



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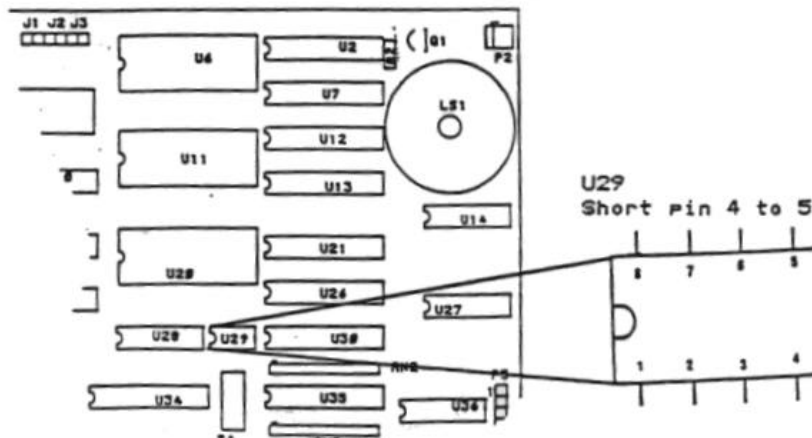


Figure 3

- F. Install option board if removed. (don't put screws back yet)
- G. Plug in unit and power up.
- H. Select 'Set Password' mode.
- I. Press escape key on keyboard.
- J. Remove power.
- K. Remove short.
- L. The password should now be disabled. Check config menu and reconfigure as needed.
- M. Reassemble unit.