

Cautions and Warnings

SYSTEM REACCEPTANCE TEST AFTER SOFTWARE CHANGES - To ensure proper system operation, this product must be tested in accordance with NFPA72-1996, Chapter 7 after any programming operation or change in site-specific software. Reacceptance testing is required after any change, addition or deletion of system components, or after any modification, repair or adjustment to system hardware or wiring.

All components, circuits, system operations, or software functions known to be affected by a change must be 100% tested. To ensure that other operations are not inadvertently affected, at least 10% of initiating devices that are not directly affected by the change, up to a maximum of 50 devices, must also be tested and proper system operation verified. In addition, changes to all control units connected or controlled by the system operating software require a 10% functional test of the system, including a test of at least one device on each input and output circuit to verify critical system functions such as notification appliances, control functions, and off-premises reporting.

Follow the instructions in the installation, operating and programming manuals. These instructions must be followed to avoid damage to the control panel and associated equipment. Fire Alarm Control Panel (FACP) operation and reliability depend upon proper installation.

Introduction

The 4005 PC Interface is intended to simplify the use of the front panel to program, edit labels, and archive program files from the 4005. Although you cannot use the 4005 PC Interface to program a CFG file without being connected to the front panel, you can upload a previously saved file in order to make modifications to a panel. All actions of the FACP are emulated by the PC keyboard with the exception of editing labels. To edit a label you can simply type the new label instead of the character-by-character scrolling method used by the front panel.

Requirements

The following is a list of requirements needed to use the PC Interface program.

- Version 1.04 of the 4005 Firmware installed in the FACP.
- IBM PC or compatible with an available Serial (COM) port.
- A Standard Upload/Download Cable (Part No. 733-794).
- The 4005 PC Interface Distribution Diskette (Part No. 741-092)

To facilitate the programming process, Log On to the 4005 at an Access Level 4. This causes a Simplex Service Mode trouble. Acknowledge the trouble before proceeding. All actions explained in this publication assume panel access at Level 4.

To successfully use the 4005 PC Interface you should be familiar with the following publications and have them available during programming:

- *4005 Fire Alarm — Installation Instructions* (574-068)
- *4005 Fire Alarm — Rev. 1.02 Release Note* (574-083)
- *4005 Fire Alarm — Programming Instructions* (574-059).

Note: All figures shown in this publication are shown as a Microsoft Windows 95 "DOS Prompt" window.

Configuration

Use Steps 1 through 4 and Figure 1 to configure the 4005 FACP and PC to use the PC Interface program.

1. Create a new directory or folder on the hard drive of your PC called **4005**.
2. Copy the contents of the 4005 PC Interface Diskette into the directory. (Use the **Help** function of MS-DOS® or Windows® for further information on creating new directories and copying files.)
3. Connect the 733-794 download cable from the available COM port of the PC to the RS232 port (P1) of the 4005 CPU (shown in Figure 1). The colored stripe of the cable indicates Pin 1. P1-1 of the RS232 port is located on the left of the P1 connector.

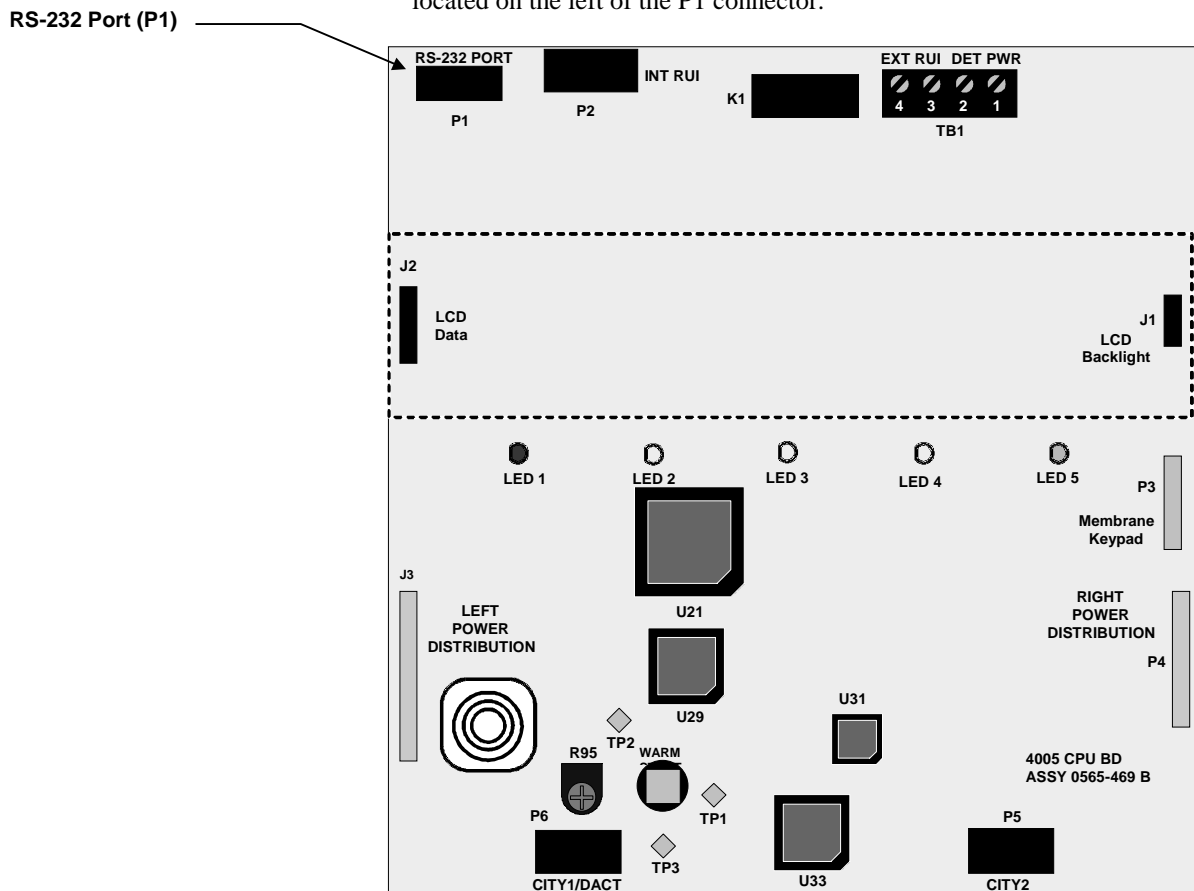


Figure 1. 4005 Base Panel

- Notes:**
- When connecting to a PC powered from an AC source, the 4005 panel indicates an Earth Fault trouble. Before using the interface program, acknowledge the trouble and continue (refer to the "4005 PC Interface Screen - Drop Down Menus" section of this publication).
 - Once communication has been established between the 4005 and PC through the download cable, the panel will no longer respond to the front panel keys. All input must be accomplished from the PC Keyboard.

Continued on next page

Configuration (continued)

4. From the MS-DOS Prompt (`C:\>4005\`) type `4005term` and press Enter (Figure 2 appears).

From Windows Explorer or Program Manager, you may alternatively double-click on the `4005term.exe` icon to start the program.

The information on the PC should match the information shown on the 2 x 40 character LCD on the FACP. Once active, the PC Interface program mimics or emulates the front panel controls.

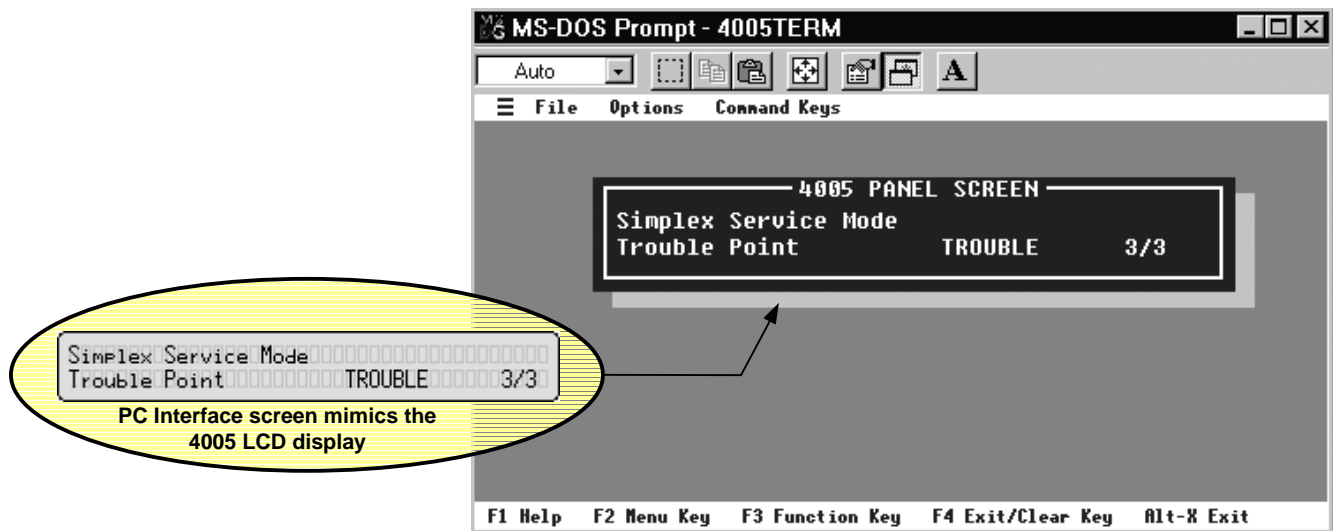


Figure 2. 4005 PC Interface Screen

If you do not have communication between the FACP and the PC Interface, Figure 3 appears after executing the `4005term` program.

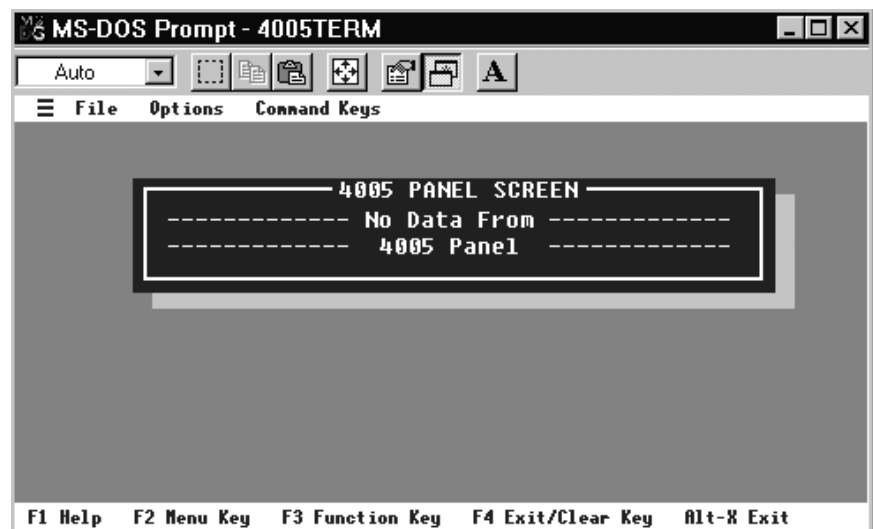


Figure 3. No Data From 4005 Panel Screen

4005 PC Interface Screen

Figure 4 shows the typical 4005 PC Interface screen. The trouble shown is from a Log On at Access Level 4. For information on front panel key definitions, refer to Table 1 on page 6 of this document.

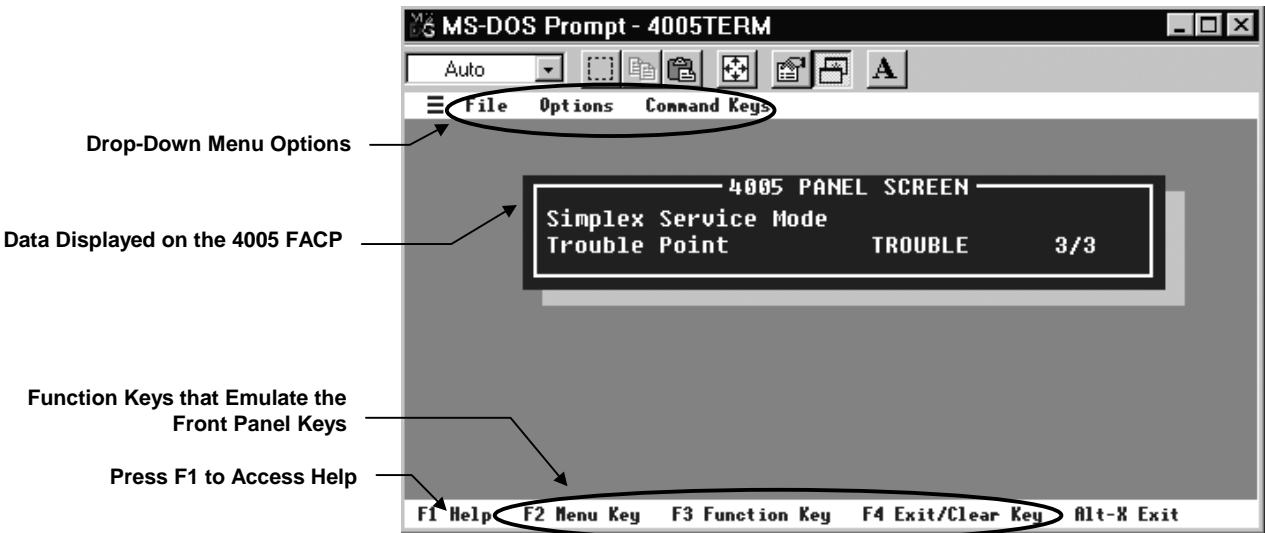


Figure 4. Typical 4005 PC Interface Screen

Drop Down Menus

The drop-down menus are accessed by pressing the Alt key and then the first letter of the menu you wish to use.

File - This menu is shown in Figure 5. From this menu you can select an archived file, change the directory to find the file, and exit the programmer.

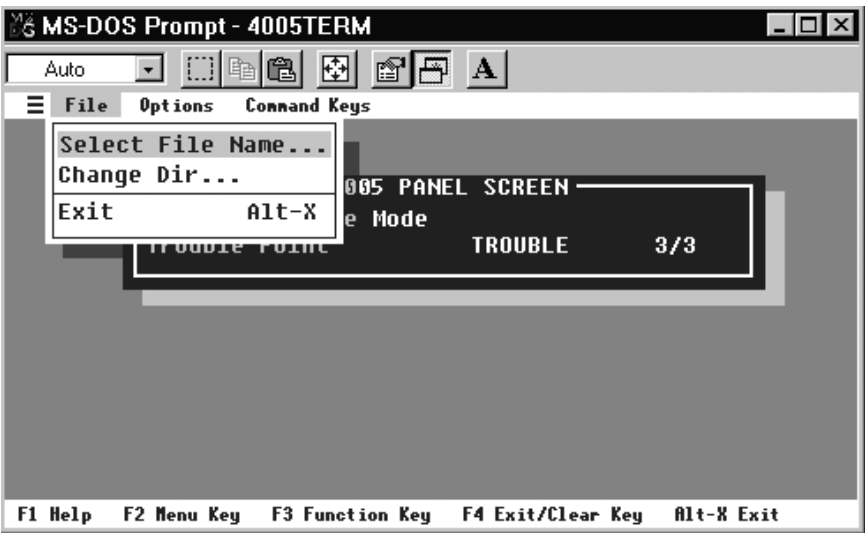


Figure 5. File Drop-Down Menu

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4005 PC Interface Screen (continued)

Options - This menu is your communications setup screen. From here you can change the default communication settings (shown in Figure 6).

Certain PCs may require you to change these settings in order to communicate successfully with the FACP.

Use the arrow keys and tab key to enter the appropriate information for the Port number, Interrupt IRQ, and Address. Once the correct settings are shown, press the tab key until **Ok** illuminates and press **<Enter>**.

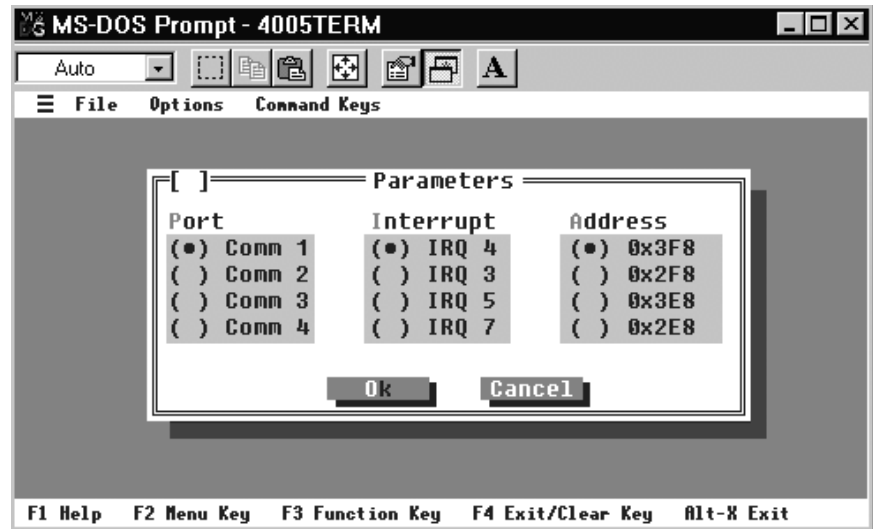


Figure 6. Options-Communications Screen

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4005 PC Interface Screen (continued)

Command Keys - From this menu (shown in Figure 7), you can access the five command keys on the front of the 4005: Alarm ACK, Trouble ACK, Supv ACK, Signal Silence, and System Reset. To execute any of the preceding functions, press **Alt + C** to drop down the Command Keys menu, use the arrow key to highlight the desired option and press Enter.

If you also wish to Disable/Enable a point, you must first use the PC Interface to display the point, press **Alt + C** to drop down the Command Keys menu, use the arrow key to highlight the Disable/Enable option and press **<Enter>** and then follow the prompts.

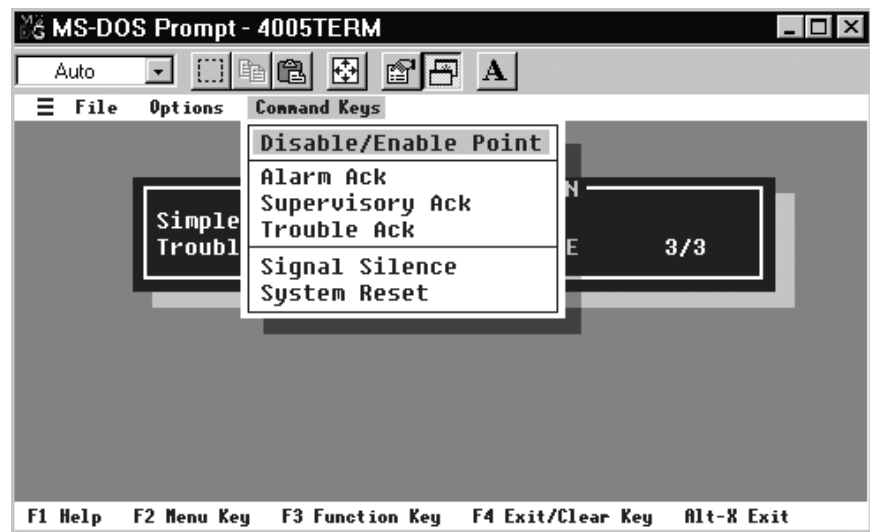


Figure 7. Command Keys Drop-Down Menu

Table 1 contains definitions of the Command Keys.

Table 1. Command Key Definitions

Command Key	Definition
Disable/Enable Point	Disables or Enables the point that is currently displayed.
Alarm Ack	Acknowledges any unacknowledged fire alarms in the system and scrolls through the alarms in the active Alarm List.
Supervisory Ack	Acknowledges any unacknowledged supervisory condition in the system and scrolls through the supervisory conditions in the active Supervisory List.
Trouble Ack	Acknowledges any unacknowledged Troubles in the system and scrolls through the Troubles in the active Trouble List.
Signal Silence	Silences any silenceable output types (generally all non-visible notification appliances).
System Reset	Resets all alarm notification appliances and controls, removes alarms from the Alarm List, silences all silenceable outputs, resets detectors, and returns the system to a normal state (provided that no alarms are present). The display indicates that a reset is in progress and whether or not a reset completes successfully.

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4005 PC Interface Screen (continued)

Function Keys

The function keys shown at the bottom of the PC Interface screen allow access to three additional front panel keys, context sensitive help screens, and a key press combination that allows you to exit the programmer.

F1 (Help) - When in a certain screen that you don't understand or need additional information about, press F1 on your PC. A Help screen appears giving a short description of the option or action you have accessed. The sample help screen shown in Figure 8 displays information on the Disable/Enable menu option.



Figure 8. Sample Help Screen

F2 (Menu Key) - This key is the PC key that operates the same as if pressing Menu at the front panel and brings you to the top of the main menu structure.

F3 (Function Key) - This key is the PC key that operates the same as if pressing Function at the front panel and displays a list of possible actions that can be performed. When viewing a point, the Function key gives you the ability to change the current state (if you are logged in at the correct level).
Use the up and down arrow keys to scroll through the control functions list.

F4 (Exit/Clear Key)- This key is the PC key that operates the same as if pressing Exit/Clear at the front panel.

Alt-X (Exit)- Pressing the **Alt** + **X** keys simultaneously on the PC exits the 4005 PC Interface Program.

Editing Custom Labels

This section describes the difference between editing labels at the front panel and editing labels using the PC Interface.

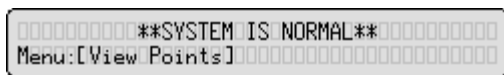
When editing a label from the front panel, you must scroll through the available character set using the FACP Next and Previous keys (character-by-character). Using the PC Interface, you can simply type the new label using the available character set from the PC keyboard.

Using the following steps and figures, use the PC Interface to access the appropriate menu and edit a custom label.

Note: To ensure that you do not corrupt your existing labels, refer to the “Archive and Configure CFIG” section of this publication to back up your current 4005 CFIG.

To Edit a Custom Label of a point, use the following steps:

1. Connect the PC to the 4005 and start the **4005term** program as described in step 4, page 3 of this document.
2. Log on to the 4005.
 - a) Press **F2** (Menu) to start at the top of the Main Menu structure. Note that the PC screen shows the same information as is displayed on the 4005 LCD panel (see Figure 9).
 - b) Press the up or down arrow to scroll through the selections until **[Passcode]** is displayed, and then press **<Enter>**.
 - c) Press the up or down arrow to scroll through the selections until **[Log In]** is displayed, and then press **<Enter>**.
 - d) Enter the four digit passcode using the PC keyboard. Press **<Enter>**. Note that asterisks (*) are displayed rather than the digits that you type.



*********SYSTEM IS NORMAL*********
Menu:[View Points]*****

4005 Panel LCD

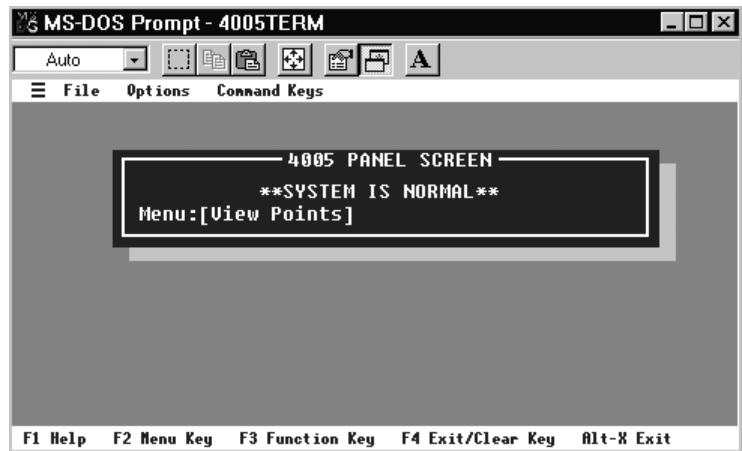


Figure 9. 4005 Panel LCD and PC Panel Screen Displays.

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Editing Custom Labels (continued)

2. Press **F2** (Menu) to start at the top of the Main Menu structure again.
3. Press the up or down arrows to scroll through the menu until **[Programming]** is displayed and then press **<Enter>**.
3. Press the up or down arrows to scroll through the menu until **[Edit Point]** is displayed and then press **<Enter>**.
5. Press the up or down arrows to scroll through the menu until the desired device type is displayed and then press **<Enter>**.

Note: System Point Labels cannot be edited or cleared.

6. Press the up and down arrows to scroll through the points until the point you wish to edit is displayed and then press **F3**.
7. Press the up and down arrows to scroll through the Function menu until **[Edit Point Label]** is displayed and then press **<Enter>**.

Figure 10 appears with an edit screen. Press the tab key until the blinking cursor appears in the label and then type in your label. You can use the back space to delete the existing label. Pick a label that best suits the location or function of the point. The available characters are as follows :

- Digits: **0-9**
- Alpha: **A-Z and a-z**
- Punctuation: **space comma period & ' (* + - / : #**

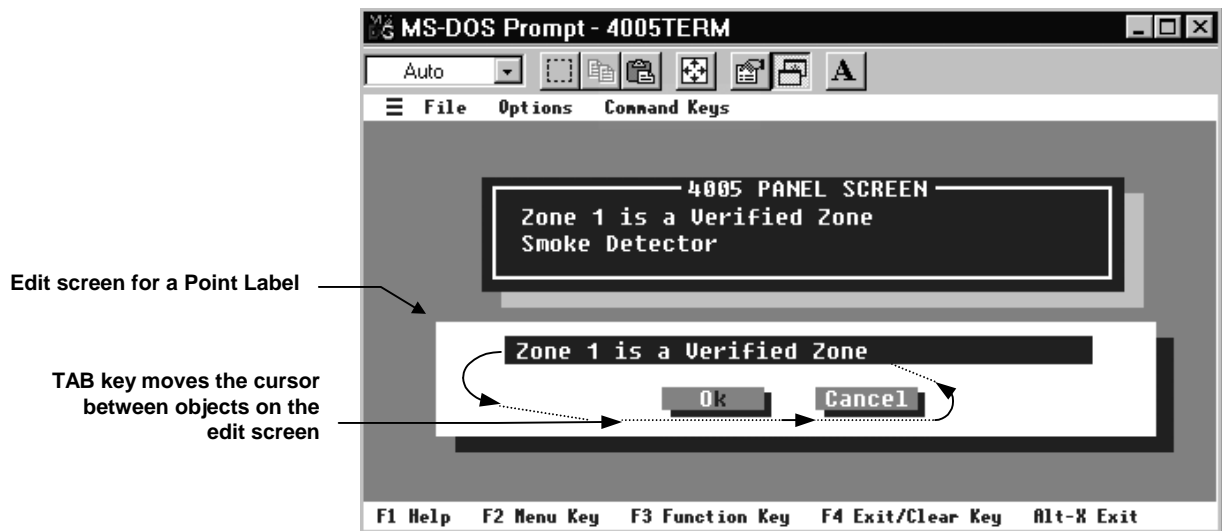


Figure 10. Edit Point Label Screen.

8. Press tab to select OK once the label reads correctly, and then press **<Enter>**. Press **<Enter>** again to confirm the change to the label.
9. Press **F4** (Exit/Clear) until the **Save CFG** screen is displayed. You must Save to CFG in order for your changes to take effect.

Archive and Configure CFIG

Use the following information to Archive a file to the PC and to restore the Archive from the PC to the FACP.

Archive

To archive CFIG data from the 4005 to the PC, use the following steps:

1. Press the **F2** (Menu) key to start at the top of the Main Menu structure.
2. Use the up and down arrow keys to scroll through the selections on the 4005 Panel Screen until [**Data Transfer**] is displayed (see Figure 10) and then press <Enter>.

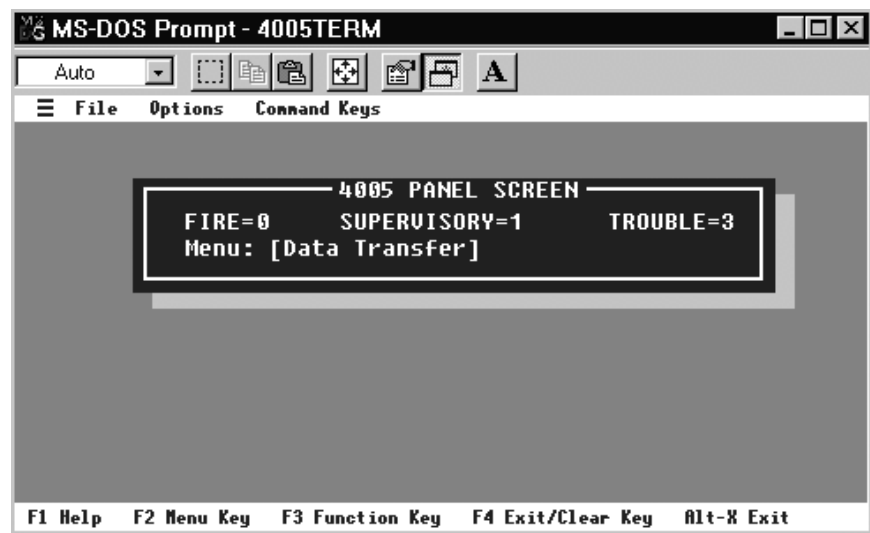


Figure 11. Data Transfer Screen

3. Use the up and down arrow keys to scroll through the selections until [**Archive CFIG**] is displayed and press <Enter>.

Figure 12 appears informing you that data from the FACP is transferring to the PC. There is a transfer record counting the transferred data packets up to completion in the middle bottom of the screen. You can cancel the transfer at any point by pressing F4 (EXIT).

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Archive and Configure CFIG (continued)



Figure 12. Transferring Data to PC Screen

4. Once the transfer of data is complete, you must assign a filename and destination to the data. Assign an appropriate filename with an extension of ".BIN". (For example: "CFIG1234.BIN")
5. After assigning a filename, press the tab key until OK illuminates and then press **<Enter>**.

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Archive and Configure CFIG (continued)

Configure CFIG

To restore CFIG data from the PC back to the 4005, use the following steps:

1. Press the **F2** (Menu) key to start at the top of the Main Menu structure.
2. Scroll through the selections until [**Data Transfer**] is displayed and press <Enter>. Scroll through your options until [**Configure CFIG**] is displayed and press <Enter>.

The PC Interface automatically selects that last archived file to restore to the CFIG. If you want to restore a different file, use the tab key until No is illuminated and then press <Enter>. Select a different file name and then press <Enter>.

Once the appropriate file is selected, the PC Interface allows you to confirm your choice of file to restore (see Figure 13). Use the tab key to select OK and press <Enter>.



Figure 13. Load File from PC to FACP Screen

3. There is a transfer record counting up to completion in the middle bottom of the screen. You can cancel the transfer at any point by pressing **F4** (EXIT).
4. Once the file is transferred successfully, the PC Interface gives you the opportunity to save the transferred file to the FACP CFIG or to abandon the changes. Press <Enter> to save, **F4** to abandon and exit.

Once you select save, the FACP cold starts to configure the CFIG. During the cold start, all communication between the FACP and the PC Interface is suspended. Once the cold start is complete, communication is resumed.