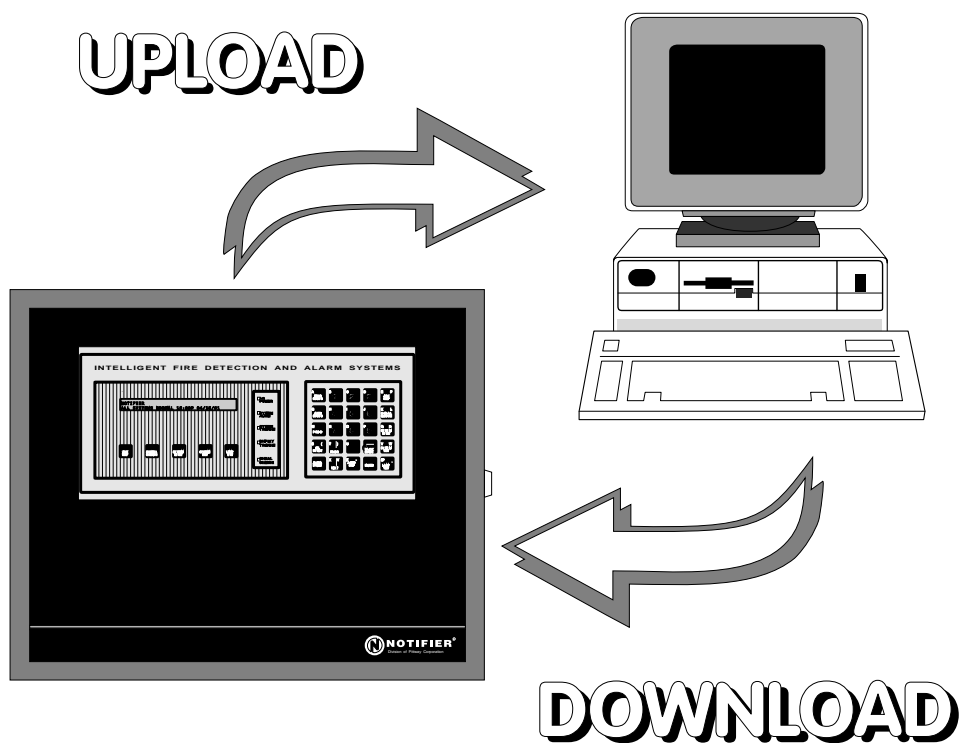


The UPDL-2020/1010

A Data Transfer Utility for the AM2020 and AFP1010



Installation Precautions

WARNING - Several different sources of power can be connected to this fire alarm control panel. Disconnect all sources of power before servicing. Control unit and associated equipment may be damaged by removing and/or inserting cards, modules, or interconnecting cables while the unit is energized. Do not attempt to install, service, or operate this unit until this manual is read and understood.

CAUTION - *System Reacceptance Test after Software Changes:* To ensure proper system operation, this product must be tested in accordance with NFPA 72-1993 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. In addition, 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 be tested and proper system operation verified.

This system meets NFPA requirements for operation at 0-49°C and at a relative humidity of 85% RH (non-condensing) @ 30°C. However, the useful life of the system's standby batteries and the electronic components may be adversely affected by extreme temperature ranges and humidity. Therefore, it is recommended that this system and its peripherals be installed in an environment with a nominal room temperature of 60-80°F.

Verify that wire sizes are adequate for all initiating and indicating device loops. Most devices cannot tolerate more than a 10% I.R. drop from the specified device voltage.

Adherence to the following will aid in problem-free installation with long-term reliability:

Like all solid state electronic devices, this system may operate erratically or can be damaged when subjected to lightning induced transients. Although no system is completely immune from lightning transients and interferences, proper grounding will reduce susceptibility. *Overhead or outside aerial wiring is not recommended, due to an increased susceptibility to nearby lightning strikes.* Consult with the Technical Services Department if any problems are anticipated or encountered.

Disconnect AC power and batteries prior to removing or inserting circuit boards. Failure to do so can damage circuits.

Remove all electronic assemblies prior to any drilling, filing, reaming, or punching of the enclosure. When possible, make all cable entries from the sides or rear. Before making modifications, verify that they will not interfere with battery, transformer, and printed circuit board location.

Do not tighten screw terminals more than 9 in-lbs. Over tightening may damage threads, resulting in reduced terminal contact pressure and difficulty with screw terminal removal.

This system contains static-sensitive components. Always ground yourself with a proper wrist strap before handling any circuits so that static charges are removed from the body. Use static suppressive packaging to protect electronic assemblies removed from the unit.

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. FACP operation and reliability depend upon proper installation.

Fire Alarm System Limitations

While installing a fire alarm system may make lower insurance rates possible, it is not a substitute for fire insurance!

An automatic fire alarm system - typically made up of smoke detectors, heat detectors, manual pull stations, audible warning devices, and a fire alarm control with remote notification capability can provide early warning of a developing fire. Such a system, however, does not assure protection against property damage or loss of life resulting from a fire.

Any fire alarm system may fail for a variety of reasons:

Smoke detectors may not sense fire where smoke cannot reach the detectors such as in chimneys, in walls, or roofs, or on the other side of closed doors. Smoke detectors also may not sense a fire on another level or floor of a building. A second floor detector, for example, may not sense a first floor or basement fire. Furthermore, all types of smoke detectors - both ionization and photoelectric types, have sensing limitations. No type of smoke detector can sense every kind of fire caused by carelessness and safety hazards like smoking in bed, violent explosions, escaping gas, improper storage of flammable materials, overloaded electrical circuits, children playing with matches, or arson.

IMPORTANT! *Smoke detectors must be installed in the same room as the control panel and in rooms used by the system for the connection of alarm transmission wiring, communications, signaling, and/or power.* If detectors are not so located, a developing fire may damage the alarm system, crippling its ability to report a fire.

Audible warning devices such as bells may not alert people if these devices are located on the other side of closed or partly open doors or are located on another floor of a building.

A fire alarm system will not operate without any electrical power. If AC power fails, the system will operate from standby batteries only for a specified time.

Rate-of-Rise heat detectors may be subject to reduced sensitivity over time. For this reason, the rate-of-rise feature of each detector should be tested at least once per year by a qualified fire protection specialist.

Equipment used in the system may not be technically compatible with the control. It is essential to use only equipment listed for service with your control panel.

Telephone lines needed to transmit alarm signals from a premise to a central monitoring station may be out of service or temporarily disabled.

The most common cause of fire alarm malfunctions, however, is inadequate maintenance. All devices and system wiring should be tested and maintained by professional fire alarm installers following written procedures supplied with each device. System inspection and testing should be scheduled monthly or as required by National and/or local fire codes. Adequate written records of all inspections should be kept.

The UPDL-2020/1010

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Before you Begin . . .



Before an upload or download can be performed, the SIB-2048 Serial Interface Board must be programmed with the correct number of Loop Interface Boards (LIBs) installed in the AM2020/AFP1010 system.

Please note that you can not download without having previously performed an upload of the system. During the download operation, all fire protection from the AM2020/AFP1010 will be suspended. When the download finishes, you must power down the AM2020/AFP1010 and restart the entire system. After an upload is completed, maintain a backup of the retrieved (uploaded) data.



For Proper operation of the UPDL-2020 utility, you should always download a database using the newest format. If you are not absolutely positive your database has the newest format, you must reference the "AM2020 File Conversion Utility" section of this document.

General Information

The UPDL-2020/1010 is used to retrieve and save the user-entered AM2020/AFP1010 operating program on an IBM-compatible personal computer. This utility is designed to upload all user-programmed data from the AM2020/AFP1010 to a specified file on a PC or to download the user-programmed data from a specified file on a PC to the AM2020/AFP1010.

To install this utility, simply copy the files from your UPDL-2020/1010 diskette to the desired directory.

To operate the utility, perform the operations described on the following pages.

Sections

This manual is presented in three basic sections:

1. A graphic display of the hardware connections required for this system.
2. A thorough step-by-step guide in operation of the UPDL-2020/1010 software.
3. A condensed operational guide to be used once you become experienced in using the system.

Hardware Installation

To perform the hardware setup the IC232-485 hardware kit is required. This kit provides the necessary equipment to interface the PC with the AM2020 and AFP1010. This kit is a separate order and is NOT included with the AM2020, AFP1010, or the UPDL-2020/1010 software package.

Inventory

Before continuing, ensure that you have the following components:

- UPDL-2020/1010:** 5.25" or 3.5" diskette containing Upload/Download software.
- IC232-485:** EIA-232 to EIA-485 converter.
EIA serial port cable.
9 VDC and 9 VAC wall mount power supplies.

Twisted shielded pair wiring: To connect to AM2020/AFP1010 (not included).

To Install:

- ☐ Remove the annunciator connector (P5) from the SIB-2048 on the AM2020 or AFP1010. All annunciators will go into trouble condition during the time P5 remains removed.
- ☐ Remove existing wires from P5 and connect temporary wiring as shown in Figure 2. Be sure to observe polarity on the DC supply lines.
- ☐ Connect one end of the serial cable to the serial port on the computer.
- ☐ Connect the other end of the serial cable to the EIA-485 converter.
- ☐ Plug the two power supplies into 110VAC/60Hz wall sockets.

Upon completion of Upload/Download:

- ☐ Disconnect wall mount power supplies.
- ☐ Disconnect serial cable from the computer.
- ☐ Disconnect P5.
- ☐ Remove temporary wiring from P5 and re-install annunciator wiring.

The hardware installation must be completed first due to the fact that the UPDL-2020/1010 software will not operate correctly until the hardware configuration is correct.

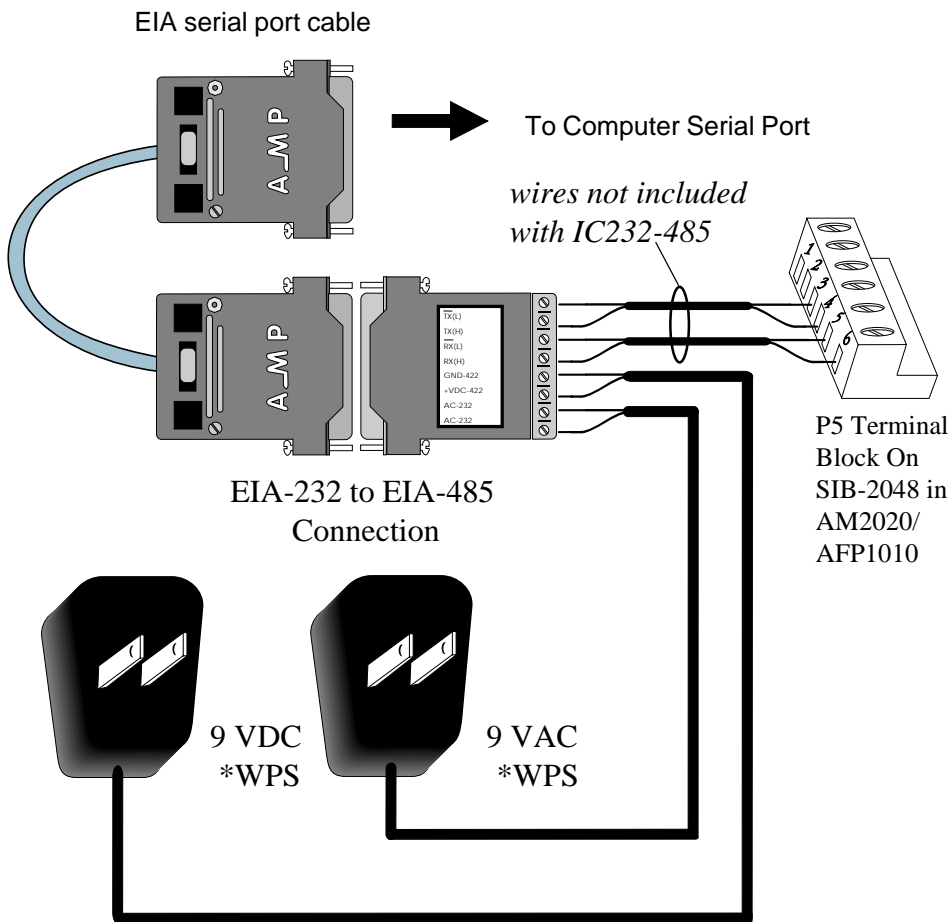
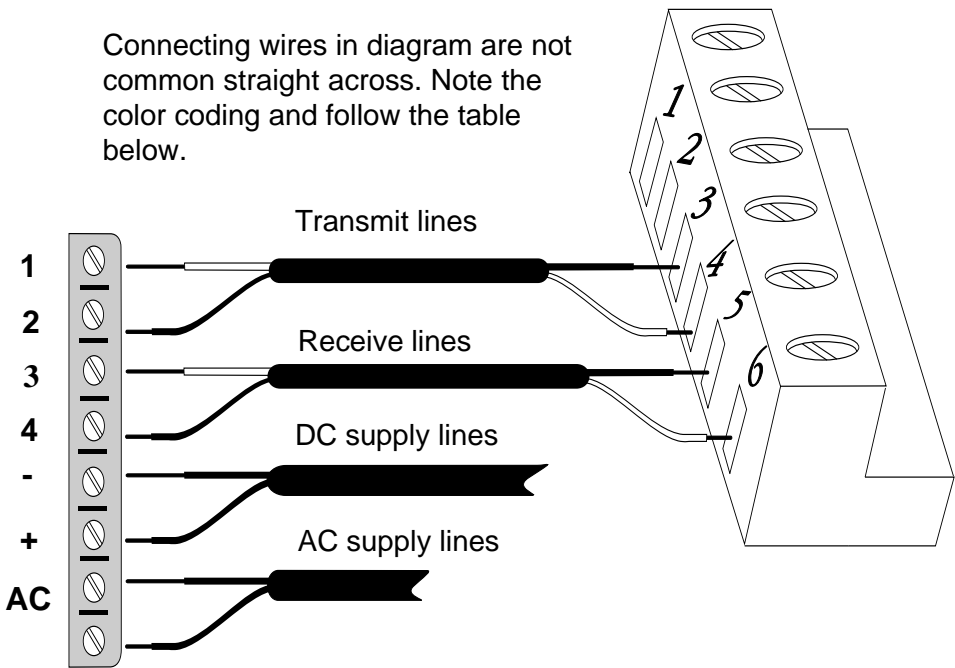


Figure 1: UPDL-2020/1010 Connections

All components shown are included with the IC232-485, with the exception of the interconnecting wire between the EIA-485 and the connector (P5). This wire may be of varying length due to differences in installation setups and is therefore supplied by the user.

*WPS (Wall Mount Power supply)

This close-up diagram is presented to depict each individual point-to-point connection clearly. The area shown is the connector block of the EIA-485 (left) to the SIB-2048 P5 Terminal Block connector (right).



<i>Shown on EIA-485</i>	<i>P5 Terminal Block</i>
1	4
2	3
3	6
4	5

Figure 2: EIA-485 Connections

The EIA-485 terminals (left) indicate a corresponding connection with the P5 connector block (right).

Detailed Operations Guide A

DOS and the UPDOWN Setup

If you are not familiar with the DOS (Disk Operating System) environment of the IBM PC, this area will instruct you on how to setup and install your UPDL-2020/1010 diskette to your system. If you are familiar with DOS and IBM file manipulations, and wish to skip this section, the location and setup of UPDOWN.EXE is stated on Page 4 under "General Information."

The working directory UPDL is recommended here for the sake of instruction and ease of installation for beginners. The working directory in theory can be called any name the user wants.

1. Insert your UPDL-2020/1010 Diskette into Disk Drive A.
2. Type DIR A: then press <Enter>. Along with other files, you should see a file named "UPDOWN.EXE"
3. Next, enter the following commands:

<i>Command</i>	<i>Meaning</i>
C:	Go to drive C
CD\C:	Change directory to drive C's root directory
MD UPDL	Make a directory called UPDL
COPY A:*.* C:\UPDL	Copies the UPDL-2020/1010 files to the Hard Drive.
CD\UPDL	Changes directory to UPDL

At this point you are in the working directory UPDL where you copied the program UPDOWN.EXE. If you type "DIR" for a directory listing you should see the file UPDOWN.EXE. This is where you will begin the execution of this program. Remove the floppy diskette from drive A and put it away for storage. In the future whenever you wish to use the program you must be "in" the UPDL directory.



Note: In addition to the file UPDOWN.EXE, you will find several other files on the UPDL-2020/1010 diskette. The file READ.ME contains additional information about the UPDL-2020/1010 program. You can read the contents of READ.ME by printing the file, or by typing README at the DOS prompt. The file CONVERT.EXE can update the database format of old program storage files to the newest format. For more information, reference the "AM2020 File Conversion Utility" section of this document.

Detailed Operations Guide B

Begin execution of the program by changing the directory to UPDL and entering UPDOWN. Enter commands as follows:

C:\ <Enter>

CD\UPDL <Enter>

UPDOWN <Enter>

You will now see the opening screen:

Upload Download Utility Main Menu

1	-	AFP-1010	Upload/Download
2	-	AM2020	Upload/Download
3	-	AM2020	Conversion Utility
Z	-	Exit	

Select Option >

There are three basic operating modes for the UPDL-2020/1010 software package:

"U" FOR UPLOAD

"D" FOR DOWNLOAD

"T" FOR TEST

Note: The UPDL-2020/1010 operating program can be aborted by pressing one key on the PC keyboard. To abort operation at any point, press "Z."

Upload Command

This command receives data from the AM2020/AFP1010. UPLOAD will receive program data from the AM2020/AFP1010 and send the data to the PC for storage. In the event of data corruption on the AM2020/AFP1010, you will have a "backup" on the PC that you can send back to the AM2020/AFP1010 at any time. Be sure to read "Before you Start," and "Hardware Installation" at the beginning of this manual for all details on pre-start instructions.

You are prompted to choose between Upload/Download for the AFP1010 or the AM2020, or the Conversion Utility for the AM2020. To abort an operation at any point, press Z.

You will now see the opening screen. It will say:

Press any key to begin program

1. You are now prompted to select a function to perform. Choose "U" to UPLOAD.
2. You will next be prompted to do the following:

Enter database name, or Z to exit.

This means to "give a name to the file in which all information you receive from the AM2020/AFP1010 will be stored." You are limited to eight characters and an extension is not required. Examples of legal filenames:

AM2020
AFP1010
DATA

AM2020.TXT
AFP1010.TXT
DATA.TXT

AM2020.DAT
AFP1010.DAT
DATA.DAT



It is important to note that if you have a previously uploaded file and upload again using the same filename, it will erase the old file from your hard drive and replace it with the newer one. If you wish to upload multiple files with different system configurations, you must use different names for each of them.

3. You will now be prompted to enter a serial port to use. Valid ports are 1 or 2. No other ports are recognized. If you enter a non existent port you receive the message:

Invalid entry, press any key to continue.

Once you enter a valid port, the computer will display the message:

Enable Upload/Download on the AM2020/AFP1010 panel now.

When Upload/Download is enabled, press any key.

Do not press any key until you enable the AM2020/AFP1010 for UPLOAD using the nine steps shown below.

- ☐ Enter programming mode.
- ☐ Enter the level two password.
- ☐ Select option 1 (PSYS).
- ☐ Select option 8 (ISIB).
- ☐ Select option 3 (XINT).
- ☐ Select "YES" to change the external interface.
- ☐ Select "YES" to enable the external interface.
- ☐ Select "YES" to change the ext. interface upload/download.
- ☐ Select "YES" to enable the ext. interface upload/download.

As the UPLOAD proceeds, the AM2020/AFP1010 begins sending program data to the PC, and you will see a running tally at the bottom of the screen. It will display:

Upload is "XX" % complete.

Where "XX" represents the percentage of the file that has been transferred.

If the above message does not appear, the hardware installation is incorrect and must be corrected before continuing.

☞ Note: The UPLOAD procedure will require about 30 minutes.

When this file transfer is 100 percent complete, return to the AM2020/AFP1010 keypad and repeat the nine steps outlined on the previous page to disable Upload/Download with the following exception:

☞ Select "NO" to disable the ext. interface upload/download.

The UPLOADED information from the AM2020/AFP1010 is now on your disk drive stored in the filename you specified. It is recommended that a backup copy of this file be stored on a floppy disk in the event that the primary file suffers corruption.

Download Command

This command sends data to the AM2020/AFP1010. This DOWNLOAD will send program data from your PC to the AM2020/AFP1010. Be sure to read "Before you Begin" at the beginning of this manual for all details on pre-start instructions. It is recommended that a file be tested prior to downloading (see the "TEST Command" section).

C:\ <Enter>

CD\UPDL <Enter>

UPDOWN <Enter>

Choose either AM2020 Upload/download or AFP-1010 Upload/download. You will now see the opening screen. It will say;

Press any key to begin program

☞ Note: It is recommended that a file be tested prior to downloading.



In the DOWNLOAD mode, fire protection in the AM2020/1010 is temporarily suspended. This is due to the fact that during a DOWNLOAD the system is essentially being "re-programmed" and cannot operate while new instruction commands are being sent to it.

When the download finishes, you must power down the AM2020/AFP1010 and re-start the entire system.

When an UPLOAD is executed, fire protection is NOT interrupted due to the fact that operational data is already present and, the system continues to operate in a normal fashion while sending a copy of "itself" to the PC.

1. You are now prompted to select a function to perform. Choose "D" to DOWNLOAD.

2. You will next be prompted to: **Enter *database name*, or Z to exit.**

In the DOWNLOAD condition you will enter the name of the file in which data was stored on a previous UPLOAD. Make sure you type in the correct file name or the program will not find the file in which the data exists. If you enter a file name that does not exist, you will receive the message:

File *filename* does not exist. Press any key to continue.

Examples of legal filenames:

AM2020	AM2020.TXT	AM2020.DAT
DATA	DATA.TXT	DATA.DAT

3. You will now be prompted to enter a serial port to use. Valid ports are COM 1 or COM 2. No other ports are recognized. If you enter a non-existent port you receive the message:

"Invalid entry. Press any key to continue."

If you receive the message, "***filename* Failed integrity check. Download aborted,**" refer to The AM2020 File Conversion Utility.

Otherwise, the computer will display the message:

Enable Upload/Download on the AM2020 panel now.

When Upload/Download is enabled, press any key.

Do not press a key until you enable the AM2020 or AFP1010 for DOWNLOAD using the following nine steps.

- ☐ Enter programming mode
- ☐ Enter the level two password
- ☐ Select option 1 (PSYS)
- ☐ Select option 8 (ISIB)
- ☐ Select option 3 (XINT)
- ☐ Select "YES" to change the external interface
- ☐ Select "YES" to enable the external interface
- ☐ Select "YES" to change the ext. interface upload/download
- ☐ Select "YES" to enable the ext. interface upload/download

As the DOWNLOAD proceeds, the PC sends program data to the AM2020/AFP1010, and you will see a running tally at the bottom of the screen. It will display:

Download is "XX" % complete

Where "XX" represents the percentage of the file that has been transferred.

If the above message does not appear, the hardware installation is incorrect, and must be corrected before continuing.

☞ Note: The DOWNLOAD procedure will require about 20 minutes.

A download operation sends new operating data to the AM2020/AFP1010. Before, this program can take effect, the AM2020/AFP1010 must be reset. Once the file transfer is 100% complete, power down the AM2020/AFP1010, batteries first, followed by AC second. Then power up AC first, batteries second. The entire system will now operate on the new program data it has just received.

Test Command

The TEST command will perform a check on the integrity of data received after an UPLOAD, and determine the data to be valid or invalid. This utility will identify corrupt or invalid data files so they are never assumed valid and used.

Be sure to read "Before you Start" and "Hardware Installation" at the beginning of this manual for all details on pre-start instructions.

Begin execution of the program software by changing the directory to UPDL and entering UPDOWN. Enter commands as follows:


C:\ <Enter>

CD\UPDL <Enter>

UPDOWN <Enter>

Choose either AM2020 Upload/download or AFP-1010 Upload/download. You will now see the opening screen. It will say;

Press any key to begin program

 **Note:** It is recommended that a file be tested prior to downloading.

1. You are now prompted to select a function to perform. Choose "T" to TEST.

You will next be prompted to:

Enter database name, or Z to exit.

In the TEST condition you will enter the name of the file in which data will be checked for accuracy. If you enter a file name that does not exist, you will receive the message:

File *filename* does not exist. Press any key to continue...

Examples (as in UPLOAD/DOWNLOAD demonstration):

AM2020	AM2020.TXT	AM2020.DAT
DATA	DATA.TXT	DATA.DAT

If you receive the message, **"File is incompatible with this version of UPDL-1010/2020,"** change the database format using the CONVERT utility.

Otherwise, you will now receive the message:

Test in Progress

☞ Note: The TEST procedure will require about eight minutes.

After a period of time you will receive one of two messages:

Test is Successful

Data file is valid.

<or>

Test is Unsuccessful

This means the data in the file is corrupt and should not be used. The named datafile should be deleted from the disk, and another upload should be attempted, or use the backup file (if it was created). Be sure to test the backup file before using it.

Detailed Operations Guide C

AM2020 File Conversion Utility

There are several different versions of the UPDL-2020 utility. When the database format of a program storage file changes from one utility version to the next, a new format specifier is stored with the database. For proper operation of the UPDL-2020 utility, you should always download a database using the newest database format. With the CONVERT.EXE utility you can examine and change database formats. To begin execution of the CONVERT utility, change your current directory to the UPDL directory. Then, enter the CONVERT command as follows:

```
C:\ <Enter>
CD\UPDL <Enter>
UPDOWN <Enter>
```

Choose the AM2020 conversion utility (option 3).
You will now see the opening screen. It will display:

Press any Key to continue . . .

Next, the CONVERT utility main menu will be displayed. Whenever the main menu screen is displayed, you can select any of three options or enter 'Z' to exit.

MAIN MENU

```
1 - Examine File Format
2 - Convert old format to newest format
3 - Help
Z - Exit
```

If you do not know your database file format, select option one, "Examine File Format". The next screen will prompt you for the program storage file name. After you enter the file name, the database format will be displayed.

For more information about program storage file database formats, select option three "Help".

You should exit the CONVERT utility if your database has the newest format. Otherwise, select option two, "Convert old format to newest format". Enter the file name of your old format file. Next, enter a different file name for your new format file. When the file conversion is complete the main menu screen will be displayed. The new file is now ready for a download.

Operating the Upload/Download Utility



Condensed Instructions for Experienced Users

- 1) Disconnect the annunciator cable from the SIB-2048 on the AM2020/AFP1010.
- 2) Connect the cable from the EIA-485/232 converter to the SIB-2048 at the annunciator connection. (All installed annunciators will go into trouble during upload/download).
- 3) Connect the cable from the EIA-485/232 converter to the serial port of the PC.
- 4) Begin execution of the utility by entering the directory where UPDOWN.EXE is stored and typing:

C:\ UPDOWN <Enter>

The utility will then prompt you for additional information. If you receive the message, "FILE IS IN INCORRECT FORMAT," change the database format using the CONVERT utility. When prompted to do so, enable download on the AM2020 by entering the following commands:

- ☐ Enter programming mode
- ☐ Enter the level two password
- ☐ Select option 1 (PSYS)
- ☐ Select option 8 (ISIB)
- ☐ Select option 3 (XINT)
- ☐ Select "YES" to change the external interface
- ☐ Select "YES" to enable the external interface
- ☐ Select "YES" to change the ext. interface upload/download
- ☐ Select "YES" to enable the ext. interface upload/download

These steps are required for both upload and download. When completed, hit return key on PC keyboard and the desired operation will begin.

Please note that you can not download without having previously performed an upload of the system. In addition, during the download operation, all fire protection from the AM2020/AFP1010 will be suspended.

- 5) If the operation is an upload, when completed, you will be prompted to disable download on the AM2020/AFP1010. Follow the steps outlined in (4) above with this exception:
Select "NO" to enable the ext. interface upload/download
- 6) Disconnect the converter from the AM2020/AFP1010 and re-install the connection for the annunciators and disconnect the converter from the PC.
- 7) If the operation was a download, power down the AM2020/AFP1010 and re-start the entire system.

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