

# The OLP Off Line Programming Utility for the AM2020/AFP1010

## Installation Precautions

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

**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 also 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.

## 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.

## FCC Warning

**WARNING:** This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instruction manual, may cause interference to radio communications. It has been tested and found to comply with the limits for class A computing device pursuant to Subpart B of Part 15 of FCC Rules, which is designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference, in which case the user will be required to correct the interference at his own expense.

**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.

**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.

## Canadian Requirements

This digital apparatus does not exceed the Class A limits for radiation noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la classe A prescrites dans le Règlement sur le brouillage radioélectrique édicté par le ministère des Communications du Canada.

# Introduction

## Overview

The Off Line Programmer (OLP) lets you program points for an AM2020/AFP1010 Intelligent Fire Alarm Control Panel (FACP) on a PC. Programming on the PC provides the following benefits:

- faster data entry;
- storing and tracking programming information in a data base, and
- help in documenting the data base.

## Advantages of Using the OLP

*Backup* – The OLP lets you back up and download the existing AM2020/AFP1010 data base to the FACP if the data base contains corrupt data or loses data.

*Flexibility* – You can set up a data base at a remote location. Enter data in any order; the OLP can automatically sort the data in order of SLC address at a later time. The OLP also provides a print feature to print records on a local printer so you can check the records for accuracy.

*Automatic copying of fields in consecutive records* – The OLP provides a simple way to copy previous data entries. If a data field contains the same elements for a series of records, you make the first full entry (such a Control-By-Event interlock statement) when entering the first record. When you reach the field in new records, use one keystroke and the OLP copies the previous entry automatically.

*Simple data base installation* – You only need a few preliminary commands at a PC to download the master data base or any data base group. The OLP provides a Consistency Checker option to detect data base errors before downloading. During downloading, data entry errors that halt the downloading process automatically display at process halt for easy correction.

*Post-installation capture, viewing, printing, and storage-for-printing capability* – You can capture point status reports and point test log files following installation for onsite or offsite analysis.

*Custom labels* – You can also use the OLP to program 20-character custom labels for LCD-80 annunciator points.

## Scope

Point programming with OLP is an alternate method of configuring the AM2020/AFP1010 FACP that supplements DIA or CRT procedures covered in the AM2020/AFP1010 Manual, document 15088. The OLP also lets you program an LCD-80 Liquid Crystal Display Annunciator with 20-character labels from the master data base.

NOTE: The OLP does not provide for automatic full/partial system programming.

## Hardware and Software Requirements

Hardware requirements include the following:

- a PC-compatible computer equipped with at least one disk drive, a minimum of 512Kb RAM (640K is recommended), and a hard disk with at least 4 MB minimum of free space.
- hardware to connect the PC to the FACP while downloading data. Connect the PC COM1 port to the CRT-1 port on the Serial Interface Board (SIB) in the AM2020/AFP1010. Notifier recommends connecting the PC to a SIB with RS-232 port isolation (SIB-232 or SIB-2048) and/or using a battery powered or transformer-isolated PC during downloading.

NOTE: If needed, you can temporarily substitute the PC for the system printer. The PC connects to the printer port for database upload.

Software requirements include: DOS 3.3 or higher and a standard COM port.

# How to Create and Maintain the Data Base

## Data Base Structure

The OLP creates a *master data base* in the OLP directory after building a data base. You perform most data base operations with the Master Database, such as exporting, importing, or capturing data from an installed AM2020/AFP1010 FACP. The FACP can only hold and reference one master data base.

All stored records can be grouped in two ways, *location* and *LIB*, both of which separate the records into numbered retrieval compartments.

- *Location* refers to user-defined compartments numbered from 0000 through 9999. These compartments correspond to the location number entry of each record. For example, if you enter "0007" in the *Location* field, the OLP assigns the record to location data base 0007. If no number is specified, the OLP assigns the record to location data base 0000. The preferred method is assigning all programming points not specific to locations to location 0000. The location data base is useful for partitioning of the data base arbitrarily.

NOTE: The location data base is NOT required by the AM2020/AFP1010 FACP. It is provided for user convenience.

- *LIB* refers to compartments numbered 01 through 10 that correspond to the 10 loop interface boards in an AM2020 system. (Only LIB compartments 01 and 02 are used with an AFP1010.) It also has a FZON & RZON compartment for zone record storage and an Annun. compartment for annunciator records. The L(nn) number of a point address determines its assignment to a LIB data base compartment.

Partial data base downloading allows the OLP to download a single data base compartment, useful in staged installations and retrofit projects. Use partial downloading when the number of system devices exceeds 200. This method can also make commissioning a large project more manageable, because the data base can be downloaded by floor or building using location numbers, or by SLC using LIB numbers. Partial downloading also reduces the possibility of delays due to data entry errors, each of which requires a repeat of the downloading process.

NOTE: Attempting to download more than 200 devices or 240 zones at once may cause memory or storage overflow errors in the OLP.

# Getting Started

## Installing OLP on Your Hard Disk

The OLP, in physical form, is a diskette containing control programs and data formats. In addition, the OLP includes one fully paid version of ProComm<sup>®</sup>, which permits the PC running OLP to emulate one of the AM2020/AFP1010's I/O devices. Diskettes are shipped on 3-1/2-inch 750K media.

Note: Newer versions of ProComm may not work as well with the OLP as the one supplied, particularly with older firmware combinations. The OLP will NOT work with PROCOMM PLUS<sup>®</sup>. You must use ProComm revision 2.4.3.

## New Installations

If loading the OLP for the first time, transfer the contents of the OLP disk to your resident hard disk using the procedure below:

1. Switch on PC power and wait for the PC to boot up from the hard disk.
2. Insert the OLP diskette in A: drive.
3. Access 2020 directory on drive A by typing:

```
C:> A:
A:>cd \2020
```

4. Switch to the hard drive and create a "2020" directory by typing:

```
A:> C:
C:> cd \
C:>mkdir 2020
```

5. Access the new directory on drive C by typing:

```
C:>cd \2020
```

6. Copy the contents from the OLP disk to the hard drive directory by typing:

```
C:> xcopy A: C: /e /s /v
```

7. Install ProComm into the directory C:\2020\PRO by typing:

```
C:> cd \2020\pro (Insert the ProComm disk into drive A.)
C:> A:hinstall
```

8. After the prompt returns, type:

```
C:>dir/p
```

Check that all files and subdirectories are transferred to the hard drive.

9. Remove the ProComm disk from drive A.

## CONFIG.SYS Requirements

If using DOS Rev. 3 or 4 , it is recommended that you have a DOS environment space slightly larger than the default size. Do this by placing the following line into your CONFIG.SYS file on the hard disk.

```
SHELL=C:\COMMAND.COM c:\ /E:250 /P
```

The value after E: should equal 250 or greater. If using DOS Rev. 5 or 6, the default size is 256, which is large enough for the OLP.

## Advanced Memory Manager Parameters

Using advanced memory manager parameters can cause OLP problems. In particular, OLP uses FCBs that must be located in low memory. If setting FCBs to a low number or using an advanced memory manager, some OLP operations may not work due to an inability to create certain temporary files. The following operations are most likely to be affected:

- Downloading
- Running a consistency check
- Printing a data base
- Outputting a data base to AutoCAD

If you suspect your memory manager causes problems with the OLP, continue to use a special boot disk before running the OLP. Limit the instructions on the CONFIG.SYS and AUTOEXEC.BAT files to create a standard default DOS configuration (with the possible exception of the shell command as described above).

An example of a simple CONFIG.SYS file:

```
FILES=30  
BUFFERS=30  
FCBS=13  
SHELL=C:\COMMAND.COM C:\ /e:250 /p
```

An example of a simple AUTOEXEC.BAT file:

```
PATH C:\DOS  
VERIFY ON  
PROMPT $P$G  
C:  
CD\20202
```

If using a special boot disk, boot your computer with the boot disk before changing to the 2020 directory and typing the "2020" command.

# Starting the OLP

To start the OLP, follow these steps:

1. Exit to DOS, if running another program.
2. Advance to 2020 subdirectory.

A:> C:

C:>cd \2020

3. Call in OLP program.

C:\2020>2020

The OLP copyright notice will display on th screen.

4. Strike any key.
5. Select the revision level that corresponds to the firmware revision your AFP1010/AM2020 uses (see Figure 1).

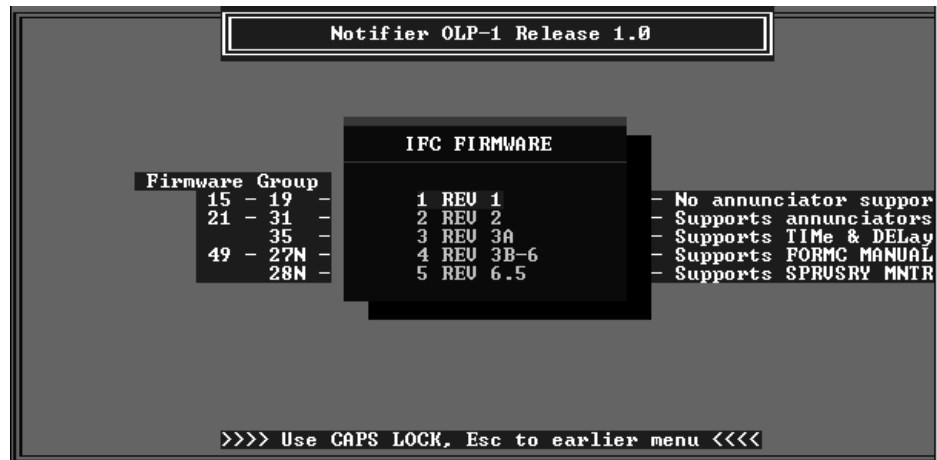


Figure 1: Revision Menu Display

NOTE: The OLP requires a minimum of 2 MB of disk space for temporary files after loading and for capturing any desired files; 3 MB is recommended. Make sure you have at least four times the size of the largest master data base free on your hard disk before starting the program.



# Using the Terminal Emulator

Data base entry using OLP supplements the DIA/CRT method of full point programming. Full system programming must be completed before downloading a data base using the OLP.

With the OLP, you can complete full system programming using the PC, rather than the DIA panel or CRT. To adapt the PC to perform panel functions, choose the Terminal option from the main menu.

## Terminal Option

In terminal mode, the PC can duplicate all commands normally entered via the DIA panel or the CRT. To use this option, connect the PC COM1 port to the SIB CRT port, highlight Terminal on the main menu display, then press <ENTER> twice. A ProComm program title will be displayed followed by an entry display containing two prompts at the top of the screen and a number of options across the bottom of the screen.

Figure 2 lists the PC function key commands. You can also display the information at any time while in terminal mode by pressing [ALT+H]

---

F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
READ	ALTR	PROG	SPL	PRIOR	NEXT	AUTO	ACKN	SYST	SYST
STAT	STAT		FNCTN			STEP		RSET	TEST

---

ALT X = EXIT

---

**Figure 2: PC Function Key Commands**

Exit the terminal option by typing [ALT+X]. The main menu display reappears on the PC.

# Programming a Master Data Base

Three steps are required in build the data base:

1. Enter point data.
2. Check for errors using the consistency checker and data base printouts.
3. Make corrections to entries.

IMPORTANT: Do not edit the master data base using any program other than OLP or you may lose the entire data base.

## Entering Point Data

To use OLP to enter point programming data:

1. Select Master Database from the main menu and press <ENTER>.
2. Select Build/Modify and press <ENTER>.



Figure 3: Master Database Menu

The system will prompt:

Be sure you are using UPPER CASE ONLY!!!

Press any key to continue...

3. Press any key. The initial form display (Figure 4) appears:

---

ADD MODE	current form = 2020
Enter character to select new mode:	
A = ADD new records	K = select records byKEY
	D = SCAN in Data file order
	I = SCAN in device order
	S = edit Scan mask
	F1 = EXIT PROGRAM
	J = Help
	SPACE = current mode

---

ENTER LXX (D/M) YY FOR DEVICE, ZXXX FOR ZONE OR AXXPPYY FOR ANNUNCIATOR: \_\_\_\_\_

ENTER TYPE ID : \_\_\_\_\_

\_\_\_\_\_

: ( ) \_\_\_\_\_

_____	:	_____	:	N
_____	:	_____	:	N
_____	:	_____	:	—
_____	:	_____	:	—
_____	:	_____	:	—

LOCATION NUMBER (0000-9999) : 0000

---

form2020

**Figure 4: Initial Form Display**

## Initial Form Display

When the initial form displays on the screen, you can access different modes of operation for building or revising the data base by pressing one of the eight mode selection keys listed on the menu at the top of the initial form. Pressing a mode selection key will put the cursor at the top of that mode's display. Different displays use different letter key commands, so look at the top of each screen for the key commands for that display.

## Displaying Help Information

To display help information, follow these steps:

1. At the initial form display, press the [J] key to access help information.
2. Press the letter key of the type of help information that you want to display (A/K/D/I/S).
3. To end help and return to the initial form display, press [ESC].

## Entering New Data – Add Mode

Use Add Mode to enter new records into the current master data base. When an empty entry form is first presented, each data field that the cursor stops at will require entry or acceptance of the default by the operator.

Enter this mode from the initial form display by selecting Add mode (pressing the A key). An empty entry form will display (Figure 6).

Use a function key or the control key with a letter to execute entry form commands. Refer to Figure 5 for a listing of commands. This information is also listed at the top of every entry form when a mode is commanded. A few of these commands are explained further following the figure.

---

ADD MODE	current form = 2020		
CURSOR:	UP ARW=prev field	DN ARW=next field	HOME=first field
	LF ARW=left char	RT ARW=right field	END=end entry
FIELD EDIT:	^C=copy field from previous record		
	DEL=del char	INS=insert hole	
END/EXIT:	F1=exit current mode		

---

**Figure 5: Keyboard Macros for Data Entry**

- <CTRL> C - Copy field entry from previous record. When you want to repeat a field entry common to two or more successive records, key the data (such as an interlock statement) into the first record. Thereafter, place the cursor at the head of that field in a following form and press <CTRL> C. The entry will be automatically copied into this record.
- <INS> –Insert hole. This command creates a space between two characters in an existing field entry so you can insert another character or character string. Position the cursor over the right hand character of the pair to be split.

Fill in each field in order with the requested information. Note that SLC numbers (Lxx) **require** two digits. For example, OLP accepts “L02” as an entry but not “L2.” When a software type ID does not require a particular field, the field displays the message PRESS ENTER.

The Control-By-Event statement, which follows the TYPE ID entry, is always displayed with open and closed parentheses. If a statement is needed, type the complete statement, with parentheses. If you do not enter a Control-By-Event-interlock statement in this field, a null set will be entered. Skip this entry by pressing <ENTER> if no statement is required by the type ID.

When the last required entry is filled in or defaulted, press the <END> key or press <ENTER> through any remaining fields. This will bring up the following message:


```
Press <RETURN> TO SAVE DATA

      <CTRL-E> TO EXIT THE CURRENT MODE

      (SPACE) TO RETURN TO TOP OF FORM AND CONTINUE
```

Press <RETURN> (or <ENTER> if the PC used has no <RETURN> key).

---

 **CAUTION:** Do not directly exit from the record after typing in entries using the F1 key or <CTRL> E. Doing this will erase your new entry record.

---

### Common Entries

Use **UPPER CASE** letters when typing data.

A blank entry form displays when you select Add mode.

ADD MODE

CURSOR:

FIELD EDIT:

END/EXIT:

UP ARW=prev field

LF ARW=left char

^C=copy field from previous record

DEL=del char

F1=exit current mode

current form = 2020

DN ARW=next field

RT ARW=right field

INS=insert hole

HOME=first field

END=end entry

---

ENTER LXX (D/M) YY FOR DEVICE, ZXXX FOR ZONE OR AXXPPY FOR ANNUNCIATOR: \_\_\_\_\_

ENTER TYPE ID : \_\_\_\_\_

: ( ) \_\_\_\_\_

: \_\_\_\_\_

: N : N

: M : \_\_\_\_\_

: N : \_\_\_\_\_

: \_\_\_\_\_

: \_\_\_\_\_

LOCATION NUMBER (0000-9999) : 0000

form2020

**Figure 6: Add Mode Entry Form Display**

This entry form has two required and one optional entry field common to all classes of points.

- SLC and device/module number address or zone number (required)
- Software type ID (required)
- Location number (optional)

Note: There is no connection between the **zone number** of item 1 and the **location number** of item 3. The location number simply partitions the data base.

Enter data for the first two fields on every entry form. If there are no options printed on the next lines, press the <ENTER> key several times to proceed to the location number. Some fields in some entry forms may prompt you to enter N and <ENTER>. If a location number is not entered, the system will use the 0000 default value.

When you define an SLC point or zone, OLP automatically defines the annunciator point you enter for that SLC point or zone with the correct type ID. Do not define an annunciator point separately if it appears in a SLC point or zone. Only define those annunciator points that are not attached to SLC points or zones.

There are several groups of points, each with its own set of options. When entering information in the entry form, the display will change to reflect the appropriate options when the software type ID is entered.

### ***ION, PHOT, THER, FTHR, FPHT, and IOND Entries***

These options apply to an intelligent sensor:

- Control-By-Event-interlock statement
- Custom label
- Detector verification
- Detector sensitivity selection (if ION, PHOT or THER type ID)
- Tracking
- Day/night sensitivity adjustment (if ION, PHOT or THER type ID)
- Mapping to annunciators

If no changes are made, the default values shown on the display are entered.

---

```

ADD MODE                                current form = 2020
CURSOR:    UP ARW=prev field  DN ARW=next field  HOME=first field
            LF ARW=left char   RT ARW=right field  END=end entry
FIELD EDIT: ^C=copy field from previous record
            DEL=del char       INS=insert hole
END/EXIT:   F1=exit current mode

```

---

```

ENTER LXX (D/M) YY FOR DEVICE, ZXXX FOR ZONE OR AXXPPY FOR ANNUNCIATOR: L01D01

ENTER TYPE ID                : PHOT

ENTER CONTROL BY EVENT      _____
: (L01M25) _____

20 CHARACTER CUSTOM LABEL    ___: PHOT EXAMPLE    ___
VERIFICATION (Yes No)       ___: N                DAY/NIGHT ADJUST (Yes No) ___: Y
SENSITIVITY (Low Med High)  ___: M                MAP TO ANNUNCIATOR (Yes No)   ___: Y
ENABLE TRACKING (Yes No)    ___: N                ANNUNCIATOR PNT (AXXPPY)    ___: A03P01
                                           ANNUNC TYPE DEFAULT    ___: ADET

LOCATION NUMBER (0000-9999)   : 0000

```

---

form2020

**Figure 7: PHOT Entry Form Example**

### ULL, MPUL, MON, SCON, WAT, NONA, and NOA Entries

Options available are the custom label, the Control-By-Event statement, tracking and a map to annunciator selection.

---

ADD MODE	current form = 2020		
CURSOR:	UP ARW=prev field	DN ARW=next field	HOME=first field
	LF ARW=left char	RT ARW=right field	END=end entry
FIELD EDIT:	^C=copy field from previous record		
	DEL=del char	INS=insert hole	
END/EXIT:	F1=exit current mode		

---

ENTER LXX (D/M) YY FOR DEVICE, ZXXX FOR ZONE OR AXXPPYY FOR ANNUNCIATOR: L01M01

ENTER TYPE ID : MPUL

ENTER CONTROL BY EVENT : (L01M25)

---

20 CHARACTER CUSTOM LABEL	___: MPUL EXAMPLE	___
PRESS ENTER	___: N	PRESS ENTER ___: Y
PRESS ENTER	___: M	MAP TO ANNUNCIATOR (Yes No) ___: Y
ENABLE TRACKING (Yes No)	___: N	ANNUNCIATOR PNT (AXXPYY) ___: A03P02
		ANNUNC TYPE DEFAULT ___: AMON

LOCATION NUMBER (0000-9999) : 0000

---

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### CON, FORC, CMXS, CMXC, and SPKR Entries

The custom label, Control-By-Event statement, signal silence, walk test, and map to annunciator options apply.

---

ADD MODE	current form = 2020		
CURSOR:	UP ARW=prev field	DN ARW=next field	HOME=first field
	LF ARW=left char	RT ARW=right field	END=end entry
FIELD EDIT:	^C=copy field from previous record		
	DEL=del char	INS=insert hole	
END/EXIT:	F1=exit current mode		

---

ENTER LXX (D/M) YY FOR DEVICE, ZXXX FOR ZONE OR AXXPPYY FOR ANNUNCIATOR: L01M02

ENTER TYPE ID : CON

ENTER CONTROL BY EVENT : ( )

---

20 CHARACTER CUSTOM LABEL	___: CON EXAMPLE	___
ENABLE SIG SILENCE (Yes No)	___: N	ENABLE WALK TEST (Yes No) ___: Y
PRESS ENTER	___: M	MAP TO ANNUNCIATOR (Yes No) ___: Y
PRESS ENTER	___: N	ANNUNCIATOR PNT (AXXPYY) ___: A03P03
		ANNUNC TYPE DEFAULT ___: ACON

LOCATION NUMBER (0000-9999) : 0000

---

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## SPSU Entry

The custom label, Control-By-Event, and map to annunciators options are the only available options.

---

ADD MODE	current form = 2020		
CURSOR:	UP ARW=prev field	DN ARW=next field	HOME=first field
	LF ARW=left char	RT ARW=right field	END=end entry
FIELD EDIT:	^C=copy field from previous record		
	DEL=del char	INS=insert hole	
END/EXIT:	F1=exit current mode		

---

ENTER LXX (D/M) YY FOR DEVICE, ZXXX FOR ZONE OR AXXPPY FOR ANNUNCIATOR: L01M03

ENTER TYPE ID : SPSU

ENTER CONTROL BY EVENT \_\_\_\_\_  
: ( ) \_\_\_\_\_

20 CHARACTER CUSTOM LABEL	___: SPSU EXAMPLE	___
PRESS ENTER	___: N	PRESS ENTER
PRESS ENTER	___: M	MAP TO ANNUNCIATOR (Yes No)
PRESS ENTER	___: N	ANNUNCIATOR PNT (AXXPYY)
		ANNUNC TYPE DEFAULT

LOCATION NUMBER (0000-9999) : 0000

---

form2020

**Figure 10: SPSU Entry Form Example**  
**APND, TPND, GPND, PWRC, GAS, GAC, WFS, GTC, WFC, SSC, TRS, TRC, TELE, and PAGE Entries**

The custom label, walk test, and annunciator mapping options apply. Since you cannot enter a Control-By-Event statement, press <ENTER> to skip that field.

---

ADD MODE	current form = 2020		
CURSOR:	UP ARW=prev field	DN ARW=next field	HOME=first field
	LF ARW=left char	RT ARW=right field	END=end entry
FIELD EDIT:	^C=copy field from previous record		
	DEL=del char	INS=insert hole	
END/EXIT:	F1=exit current mode		

---

ENTER LXX (D/M) YY FOR DEVICE, ZXXX FOR ZONE OR AXXPPY FOR ANNUNCIATOR: L01M04

ENTER TYPE ID : APND

PRESS ENTER \_\_\_\_\_  
: ( ) \_\_\_\_\_

20 CHARACTER CUSTOM LABEL	___: APND EXAMPLE	___
PRESS ENTER	___: N	PRESS ENTER
PRESS ENTER	___: M	MAP TO ANNUNCIATOR (Yes No)
PRESS ENTER	___: N	ANNUNCIATOR PNT (AXXPYY)
		ANNUNC TYPE DEFAULT

LOCATION NUMBER (0000-9999) : 0000

---

form2020

**Figure 11: APND Entry Form Example**



## FZON & RZON Entries

Figure 12 shows the available options: custom label, Control-By-Event statement, and map to annunciator.

---

ADD MODE	current form = 2020		
CURSOR:	UP ARW=prev field	DN ARW=next field	HOME=first field
	LF ARW=left char	RT ARW=right field	END=end entry
FIELD EDIT:	^C=copy field from previous record		
	DEL=del char	INS=insert hole	
END/EXIT:	F1=exit current mode		

---

ENTER LXX (D/M) YY FOR DEVICE, ZXXX FOR ZONE OR AXXPPY FOR ANNUNCIATOR: Z100

ENTER TYPE ID : FZON

ENTER CONTROL BY EVENT \_\_\_\_\_

: ( ) \_\_\_\_\_

20 CHARACTER CUSTOM LABEL	___: FZON EXAMPLE	___
PRESS ENTER	___: N	PRESS ENTER
PRESS ENTER	___: M	MAP TO ANNUNCIATOR (Yes No)
PRESS ENTER	___: N	ANNUNCIATOR PNT (AXXPYY)
		ANNUNC TYPE DEFAULT
		___: Y
		___: Y
		___: A03P05
		___: AZON

LOCATION NUMBER (0000-9999) : 0000

---

form2020

## MTRB Entry

**Figure 12: FZON Entry Form Example**

Programming a custom label, enabling tracking and mapping to an annunciator are available for this type ID.

---

ADD MODE	current form = 2020		
CURSOR:	UP ARW=prev field	DN ARW=next field	HOME=first field
	LF ARW=left char	RT ARW=right field	END=end entry
FIELD EDIT:	^C=copy field from previous record		
	DEL=del char	INS=insert hole	
END/EXIT:	F1=exit current mode		

---

ENTER LXX (D/M) YY FOR DEVICE, ZXXX FOR ZONE OR AXXPPY FOR ANNUNCIATOR: L01M06

ENTER TYPE ID : MTRB

PRESS ENTER \_\_\_\_\_

: ( ) \_\_\_\_\_

20 CHARACTER CUSTOM LABEL	___: MTRB EXAMPLE	___
PRESS ENTER	___: N	PRESS ENTER
PRESS ENTER	___: M	MAP TO ANNUNCIATOR (Yes No)
ENABLE TRACKING (Yes No)	___: N	ANNUNCIATOR PNT (AXXPYY)
		ANNUNC TYPE DEFAULT
		___: Y
		___: Y
		___: A03P06
		___: AMON

LOCATION NUMBER (0000-9999) : 0000

---

form2020

**Figure 13: MTRB Entry Form Example**

---

ADD MODE	current form = 2020		
CURSOR:	UP ARW=prev field	DN ARW=next field	HOME=first field
	LF ARW=left char	RT ARW=right field	END=end entry
FIELD EDIT:	^C=copy field from previous record		
	DEL=del char	INS=insert hole	
END/EXIT:	F1=exit current mode		

---

ENTER LXX (D/M) YY FOR DEVICE, ZXXX FOR ZONE OR AXXPYY FOR ANNUNCIATOR: L01M07

ENTER TYPE ID : MPAG

PRESS ENTER \_\_\_\_\_

: ( ) \_\_\_\_\_

20 CHARACTER CUSTOM LABEL	___: MPAG EXAMPLE	___
PRESS ENTER	___: N	PRESS ENTER ___: Y
PRESS ENTER	___: M	MAP TO ANNUNCIATOR (Yes No) ___: Y
PRESS ENTER	___: N	ANNUNCIATOR PNT (AXXPYY) ___: A03P07
		ANNUNC TYPE DEFAULT ___: AMON

LOCATION NUMBER (0000-9999) : 0000

---

form2020

**Figure 14: MPAG Entry Form Example**

### Additional Reference

For complete background information on point programming, refer to the *AM2020/AFP1010 Technical Manual, Document 15088*.

---

## Scanning Methods

You can use the following scanning methods to select data records once the data base is entered:

- Scan In Data File Order
- Scan In Device Order
- Select Records By Key

The first two scan order commands allow you to search the entire file or selected groups of records with a scan mask (see *Field Search*, below). The last method allows you to locate individual records. You can access these commands from the initial form display. All three methods are described below.

### Scan In Data File Order

***Press the Letter D Key***

Use this method to display or update the current file in order of data entry starting from the beginning of the file. Use the page up/page down keys, or keys P or N in conjunction with the <CTRL> key, to access the previous or next record respectively. You can edit the scan mask (see *Field Search*, below) so that this mode will present only selected records out of the data base.

### **Scan In Device Order**

#### ***Press the Letter I Key***

Use this method to display or update the current file in order of device addresses starting from the current file position. The sorting function indexes by device address (i.e., LxxD/Myy). The page up/page down keys, or keys P or N in conjunction with the <CTRL> key, can be used to access the previous or next record respectively. You can edit the scan mask (see *Field Search*, below) so that this mode will present only selected records out of the data base.

### **Select Records By Key**

#### ***Press the Letter K Key***

Use this method to display or update specific records and set the current file position. The basic entry form (Figure 6) is first displayed for key entry in the device address field. Type the address of the device that you want to locate the record for and press <ENTER>. If there are any records in the file with that address, the first one is displayed. This search mode is faster than searching with a scan mask.

---

## ***Field Search***

Once the master data base is entered, you can search for previously entered records using a scan “mask.” This mask allows you to search for records with certain characters in a particular field position. All other characters are replaced with an asterisk (\*), which acts as a “wild card” character in the same way as the asterisk in DOS. An unedited template for the scan mask (Figure 15) is displayed when the edit scan mask command is first entered.

---

```

EDIT SCAN MASK                                current form = 2020
CURSOR:      UP ARW=prev field  DN ARW=next field  HOME=first field
              LF ARW=left char  RT ARW=right field  END=end entry
FIELD EDIT:   ^Y=clear scan mask
              DEL=del char      INS=insert hole
END/EXIT:     F1=exit current mode

```

---

```

-----
ENTER LXX (D/M) YY FOR DEVICE, ZXXX FOR ZONE OR AXXPPYY FOR ANNUNCIATOR: *****
ENTER TYPE ID                               : ****

*****
: *****

***** : *****
***** : *      ***** : *
***** : *      ***** : *
***** : *      ***** : *****
***** : *      ***** : ****

LOCATION NUMBER (0000-9999) : ****

```

---

mask2020

**Figure 15: Unedited Scan Mask Template**

## Edit Scan Mask

### *Press the Letter S Key*

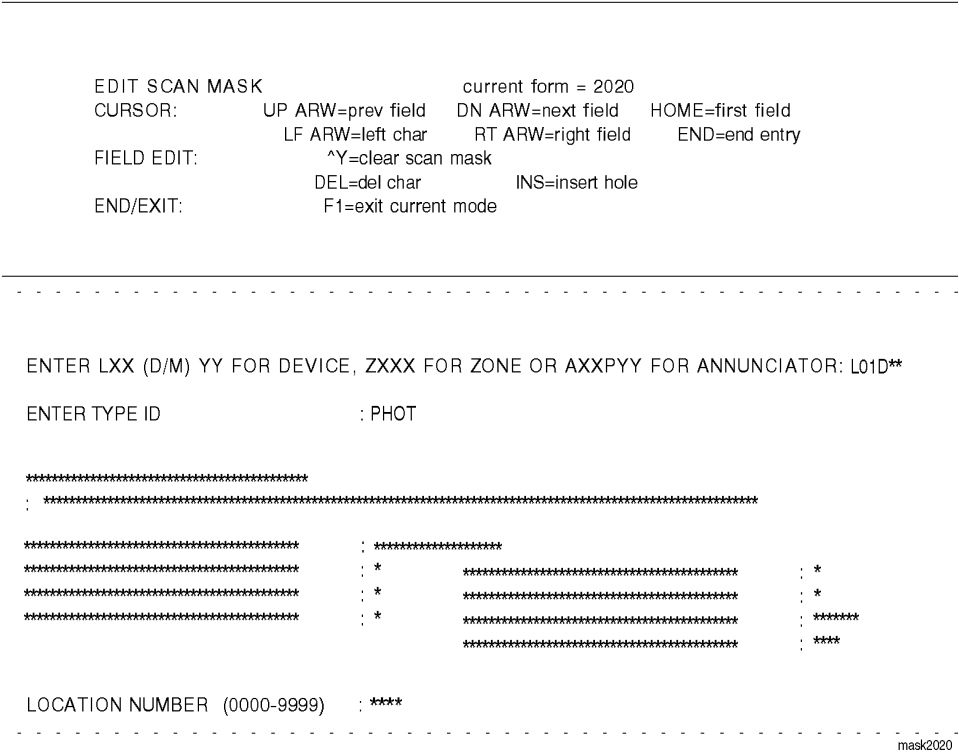
To enter edit scan mask mode to edit the scan mask , press the letter S key. When the unedited scan mask template is presented (see Figure 15), you may alter any field. When you scan using your edited version, only records that have the same characters in the same field position as the edited scan mask will be displayed. To allow all records to be displayed again, all alterations made to the scan mask must be cleared.

For example, say you wanted to display all records for photoelectric detectors located on SLC 01. You could use the edited mask illustrated in Figure 16. Only records that have “L01D” in the device address field and “PHOT” in the type ID field would be displayed when the files were searched using the mask. If more than one record matched this mask, you could page through the rest of the matching records using the page up or page down keys.

After editing the mask, press <ENTER> to skip through all the fields or press <END>. The next screen displayed shows the first record in data entry or index order (depending on which scan function was most recently used — if neither was used, OLP uses data entry order) that matches mask characteristics, if any exist.

When a search is completed, clear the scan mask of the characters you entered following the procedure below:

1. If not at initial form menu, press <F1>.
2. Type S for edit scan mask.
3. Press <CTRL> Y, then <END> to clear mask.
4. Press <F1> to return to the initial form menu.



**Figure 16: Edited Scan Mask**

### Modifying Existing Data

You can modify data on any of the display forms called up using scanning methods. Cursor movement commands are identical to those of the Add Mode, except the <CTRL> C command is omitted. Fields cannot be copied between records when a record is modified in scan mode.

When data is modified in a record, the original record is marked for deletion and a new record with the changes is created at the end of the data file. If you edit the master data base extensively, it may get very large due to the presence of old data records marked for deletion but not yet removed. If you have this problem, export, then import the master data base (see *Data Base Transfer* later in this document) to remove old data records marked for deletion.

**CAUTION:** When working on revised records, make sure that the updated record is returned to memory by pressing <END> and then <ENTER> before exiting F1.

### ***Press the F1 Function Key***

se to return from the current mode to the initial form.

### **Exit Data Base**

#### ***Press the F1 Function Key***

Use to return to Master Database menu from the initial form.

---

## ***Checking for Errors***

Before downloading the master data base to the AM2020/AFP1010, check for errors using the Check feature.

### **Using the Consistency Checker**

The Check feature tests the master data base for errors that may not cause a download failure, as well as a number of errors that would cause a download failure. These include:

- SLC devices or zones defined multiple times
- Annunciator points defined as more than one software type ID
- Illegal characters
- Undefined points used in a Control-By-Event interlock statement

The error message will tell you what type of error you have and which point or zone record contains the error. It may also show the portion of the record containing the error with a caret (^) underneath the characters that cause the checker to flag the record. Table 1 lists the conditions that cause error messages.

**Table 1: Consistency Checker Error Conditions**  
**ERROR MESSAGES**

#### **CONDITIONS THAT CAUSE**

No annunciator type ID  
Bad annunciator type ID  
Bad zone number  
Bad point address  
Bad group or type ID for point  
Invalid character in custom label  
Invalid character in Control-By-Event-interlock statement  
Undefined point in Control-By-Event-interlock statement  
Changed annunciator type ID  
Wrong annunciator type ID for point type ID  
Multiple points defined at one address  
Bad Control-By-Event-interlock statement ending  
Bad Control-By-Event-interlock statement point address  
Bad point address for type ID  
Extra annunciator address

Note: OLP's consistency checker cannot tell if a LIB number greater than 02 was assigned when

working on an AFP1010.

To use the consistency checker:

1. Select Check from the Master Database menu.
2. The system will prompt:

You are about to check a Master Database

Errors will be reported for:

Multiple defines of the same point,  
References to undefined points in the Interlock,  
Annunciator points defined as more than one type,  
Point addresses out of AM2020 range,  
Use of illegal characters in label or interlock,  
Use of illegal type ID or unsupported type ID for firmware Rev.  
Use of wrong annunciator point type

WARNING: - THIS CHECK IS PRIMARILY A CONSISTENCY CHECK NOT  
ALL DOWNLOAD ERRORS WILL BE DETECTED BY THIS SCAN

Do you wish to continue (Y/N)? (enter)

To proceed with the check, press Y, then <ENTER>. To return to the Master Database menu, press N, then <ENTER>.

---

**IMPORTANT:** The consistency checker will stop after locating 20 errors. However, there may still be more errors in the data base. Before downloading, make corrections and run the checker until it does not find any more errors.

---

---

## ***Printing the Data Base***

### **Master Data Base Printout**

When a printout of existing form files is needed for checking entries, you can command it from within the program, provided that your PC is connected to a printer (a standard DOS PRN device).

Note: If you print all or part of the master data base, some of the fields printed will not apply to all point types. These fields will be flagged by a semi-colon (;), which indicates that the field will be ignored during a download.

1. Access the Master Database Menu.

- 2.<sup>24</sup> Highlight Print, and press <RETURN>.

The PC displays:

4. Press letter Y key, then <ENTER>.

5. The system will prompt:

Do you wish to include the report heading (Y,N)? (enter)

If you do not want to print the heading, press N, then <ENTER>.

If you want to print the heading, press Y, then <ENTER>. The PC asks for the following information in a series of seven prompts.

ENTER CUSTOMER NAME

ENTER MONTH

ENTER DAY

ENTER YEAR

ENTER CONTRACT NUMBER

ENTER ENGINEER INITIALS

ENTER SALES REP INITIALS

ENTER SYS REP INITIALS

6. Type appropriate responses to each of the requests.

```
CONTACT#                               ENG:
      SALES REP:                       SYS REP:
                                AM2020 DEVICE DATABASE
----- : = IGNORED FIELD -----
DEVICE:      TYPE:      LABEL:      LOCATION: 0000
SENS:  TRACK:      D/NGHT/WK:      MAP ANN:      ANN:
----- : = IGNORED FIELD -----
                                AM2020 DEVICE DATABASE
```

**Figure 17: Report Heading (Example)**

he fill-in form displayed on the PC during this series of prompts will show the data as it is entered from the keyboard. When you answer the last request, the printer prints out the files. The printed list, regardless of original entry order, will be printed in device order sequence from A01P01 to Z240.



## Location or LIB Data Base Printout

Data base printout is also available by location or LIB.

### ***By Location***

To print a location compartment of the master data base:

1. Select By Location from the main menu.
2. Select Print Database from the By Location menu.



**Figure 18: Location Data Base Printout Menu Path**

3. The system will prompt:

```
You are about to print a partial Master Database as selected by a Location number.  
Enter the Location number you wish to print (0000-9999) (enter)  
4 DIGITS REQUIRED!!!!  
XXXX
```

4. Enter the number of the location database you wish to print.

The system will prompt:

```
Is xxxx the Location you wish to print (Y,N)? (enter)
```

5. If xxxx is not the location you wish to print, press N, then <ENTER>. You will return to the By Location menu.

If xxxx is the location data base you want, press Y, then <ENTER>.

The system will prompt:

```
Is printer connected and ready (Y/N)? (enter)
```

6. Press Y, then <ENTER>, once you have connected and set up the printer.

The system will prompt:

If you want to print the heading, press Y, then <ENTER>. The PC asks for the following information in a series of prompts.

ENTER CUSTOMER NAME

ENTER MONTH

ENTER DAY

ENTER YEAR

ENTER CONTRACT NUMBER

ENTER ENGINEER INITIALS

ENTER SALES REP INITIALS

ENTER SYS REP INITIALS

6. Type appropriate responses to each of the requests.

The fill-in form displayed on the PC during this series of prompts will show the data as it is entered from the keyboard. When you answer the last request, the printer prints out the files. The printed list, regardless of original entry order, will be printed in device order sequence from A01P01 to Z240.

### ***By LIB***

To print a LIB compartment of the master data base:

1. Select By LIB from the main menu.
2. Select the LIB you wish to print from the By LIB menu (Figure 19).



**Figure 19: By LIB Menu**

Note: Only LIB data base sections 01 and 02 apply to the AFP1010.

4. Select Print Database from the LIB menu (Figure 20).



**Figure 20: LIB Data Base Printout Menu Path**

The system will prompt:

You are about to print a partial Master Database  
Do you wish to continue (Y/N)?

3. Press letter Y key, then <ENTER>. PC prompts:

Is printer connected and ready?

4. Press letter Y key, then <ENTER>.

5. The system will prompt:

Do you wish to include the report heading (Y,N)? (enter)

If you do not want to print the heading, press N, then <ENTER>.

If you want to print the heading, press Y, then <ENTER>. The PC asks for the following information in a series of prompts.

ENTER CUSTOMER NAME

ENTER MONTH

ENTER DAY

ENTER YEAR

ENTER CONTRACT NUMBER

ENTER ENGINEER INITIALS

ENTER SALES REP INITIALS

ENTER SYS REP INITIALS

6. Type appropriate responses to each of the requests.

The fill-in form displayed on the PC during this series of prompts will show the data as it is entered from the keyboard. When you answer the last request, the printer prints out the files. The printed list, regardless of original entry order will be printed in sequence.

# Downloading the Data Base to the AM2020/AFP1010

## PC Connection

When the PC is attached, the system requires a Serial Interface Board (SIB-232 or SIB-2048, or SIB-NET). If the system has no SIB, obtain and install one before proceeding further. Installation details are given in the *Installation* section of the AM2020/AFP1010 *Technical Manual, Document 15088*.

Prior to hardware connection, it is important to ensure that the AM2020/AFP1010 system's CRT supervision and status lines are turned off. This is done using DIA panel inputs. Follow the general procedure described in the *Full System Programming* section of the AM2020/AFP1010 *Manual*.

Specifically, it is necessary to respond to options for terminal supervision and status (choice 6: EXTEQ). The responses are listed below.

```
PRESS 1=INST,2=STY,3=TDLY,4=AVPS,5=ZBND,6=EXTEQ,7=LOCP,8=ISIB,9=PARM      :6
DO YOU WANT TO CHANGE THE TERMINAL SUPERVISION? (Y=YES,N=NO)              :Y
DO YOU WANT THE TERMINAL SUPERVISION ENABLED? (Y=YES,N=NO)                :N
DO YOU WANT TO CHANGE THE TERMINAL STATUS LINE? (Y=YES,N=NO)              :Y
DO YOU WANT THE TERMINAL STATUS LINE ENABLED? (Y=YES,N=NO)                :N
```

**Figure 21: Disable Terminal Supervision and Status Settings**

## In Systems Not Equipped with a CRT

Install the PC per the procedure for CRT installation. These instructions are in the *Installing the AM2020/AFP1010* document. Ignore material relating to:

- Multiple monitor connections
- Uninterruptable power supply requirement. A conventional, reliable 120 VAC source is sufficient as the PC is a temporary device, not normally used during system operation.

## In Systems Equipped with a CRT

Connect the PC according to the following steps:

1. Ensure that power to the CRT is off.
2. Disconnect DB-25 signal cable connector from the CRT's RS-232 communications port.
3. Check to determine if port in your PC is compatible with a DB-25 connector. If it is not, obtain an adapter that allows the PC to connect to the CRT cable and make the connection.
4. Connect the PC's power cable to a reliable 120 VAC power source.

When ready to start full point programming, your PC must be connected to the system, replacing the CRT if used, and the OLP software must be installed.

---

**CAUTION:** Before downloading begins, create an unacknowledged trouble in the AM2020/AFP1010. This will prevent new troubles from terminating the OLP programming process. Once downloading is complete, correct all troubles in the AM2020/AFP1010.

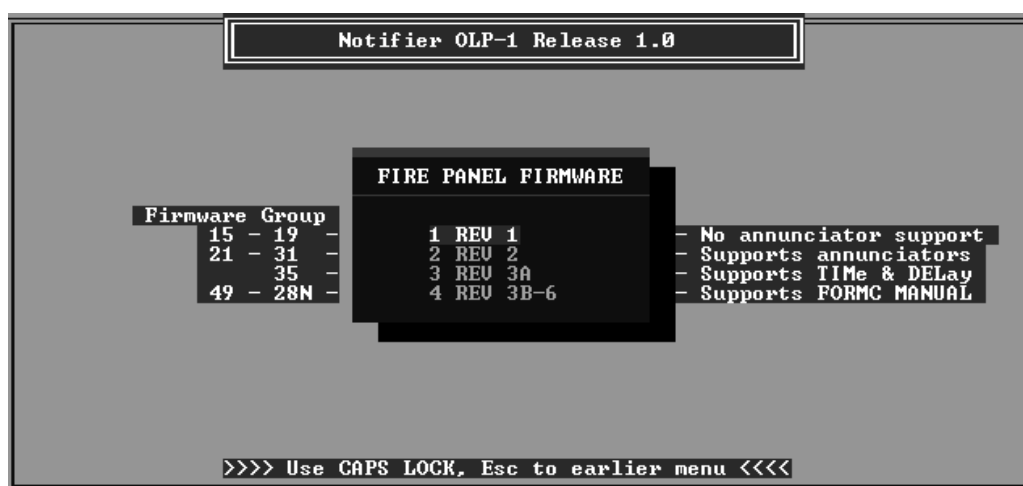
---

## System/PC Interface Ready

1. Power up the AM2020/AFP1010 system.
2. Power up the PC
3. Type `C:>cd \2020 <ENTER>`.
4. Type `C:\2020>2020 <ENTER>`.

*It is important to select the correct firmware revision. A data base built at one revision will not automatically convert to another revision. See the README file - Hints and Helps 5 for revision conversion instructions. Also, see the AM2020/AFP1010 Release History document.*

5. Select the right firmware revision from the Revision Selection menu.



**Figure 22: Revision Selection Menu Display**

---

## Downloading the Master Data Base

To download the master data base:

1. Connect PC to the AM2020 using the CRT cable.

---

**! CAUTION:** If there are more than 200 points, download By Location or By LIB.

---

2. Highlight Master Database and press <ENTER>. The screen in Figure 23 appears.



**Figure 23: Master Database Menu**

3. Highlight Download and press <ENTER>.

The PC displays:

You are about to download a complete Master Data base to an AM2020

If more than 200 points are involved, utilize the download By Location or By LIB option

Connect interface cable in CRT configuration

Do you wish to continue (Y/N)? (enter)

4. Press Y.

The PC prompts:

ENTER AM2020 LEVEL TWO PASSWORD

5. Type in current programming password and press <ENTER>. (Wait while the download file is being built.)

PC displays ProComm title screen and prompts:

Press <ENTER> to begin downloading

Press <ENTER>.

The data base downloads automatically into system memory. As each line of parameter specifications is entered, it is displayed on the PC and the display of the DIA panel.

The display halts on the discovery of an entry error. When the download is complete, the PC will display:

Download end

Returning to menu

---

### ***Aborting the Download***

If the program stops because the AM2020 detects an entry error, the downloading process will halt. The display can stay halted for up to 30 minutes, so do not leave it unattended for long periods of time. Take the following corrective action. Note the device address and the nature of the problem.

1. Abort the downloading entry process by typing:
  - <ESC> (to exit the download file)
  - <Backspace> (to stop AM2020 prompting)
  - <ALT> X (to return to the master data base menu)
2. Highlight Build /Modify and press <ENTER>.
3. Locate the record in error using one of the search methods described in the *Field Search* section of this document. Analyze the display for the entry error and correct it. Save the change by pressing the <END> key.
4. When finished, exit the correction process by pressing the F1 function key.

The PC will display the Master Database menu options.
5. Highlight Download and press <ENTER>.

The system should now accept the corrected record. Correct any errors encountered later in the loading process using the same procedure.

Note: If the firmware revision selected is wrong or the AM2020/AFP1010 firmware is not a supported version, download may fail due to a mismatch between OLP data fields and AM2020/AFP1010 programming prompts.



---

## **Downloading a Location or LIB Data Base**

You can download selected location and LIB data bases using the same method used for the master data base. Use the appropriate menu options.

Note: If you try to download part of a master data base using a nonexistent LIB or location number, the download may hang up immediately after OLP tries to log in. If this happens, press ESC to stop the download control file, and then ALT-X to exit ProComm.

### **By Location**

To download a data base by location:

1. Select By Location from the main menu.
2. Select Download Database from the By Location menu.



**Figure 24: Location Download Menu**

3. The system will prompt:

You are about to download a partial Master Database as selected by a Location number.  
Connect interface cable in CRT configuration.

Enter the Location number you wish to download (0000-9999) (enter)

4 DIGITS REQUIRED!!!!  
XXXX

4. Enter the number of the location data base you wish to download and press <ENTER>.  
The system will prompt:

Is xxxx the Location you wish to download (Y,N)? (enter)

5. If xxxx is the location data base you want, press Y.

The system will prompt:

```
ENTER AM2020 LEVEL TWO PASSWORD
```

6. Type in current programming password and press <ENTER>. (Wait while the download file is being built.)

PC displays ProComm title screen and prompts:

```
Press <ENTER> to begin downloading
```

Press <ENTER>.

The data base downloads automatically into system memory. As each line of parameter specifications is entered, it is displayed on the PC and the display of the DIA panel.

The display halts on the discovery of an entry error. When the download is complete, the PC displays:

```
Download end
```

```
Returning to menu
```

## By LIB

To download a LIB data base:

1. Select By LIB from the main menu.
2. Select the LIB you wish to download from the By LIB menu.



**Figure 25: LIB Download Menu**

Note: Only LIB data base sections 01 and 02 apply to the AFP1010.

2. Select Download Database from the LIB menu.

The system will prompt:

```
You are about to download a partial Master Database to an AM2020
Connect interface cable in CRT configuration
Do you wish to continue (Y/N)?
```

3. Press letter Y key, then <ENTER>. PC prompts:

The system will prompt:

```
ENTER AM2020 LEVEL TWO PASSWORD
```

4. Type in current programming password and press <ENTER>. (Wait while the download file is being built.)

PC displays ProComm title screen and prompts:

```
Press <ENTER> to begin downloading
```

Press <ENTER>.

The data base downloads automatically into system memory. As each line of parameter specifications is entered, it is displayed on the PC and the display of the DIA panel.

The display halts on the discovery of an entry error. When the download is complete, the PC displays:

```
Download end
```

```
Returning to menu
```

---

### ***Downloading Zones or Annunciator Points***

To download zones or annunciator points, use the procedure described in the *By LIB* section of *Downloading a Location or LIB Data Base*, but instead of selecting a LIB from the By LIB menu, select either FZON & RZON or Annun.

---

### ***Downloading to an LCD-80***

OLP allows you to program an LCD-80 Liquid Crystal Display annunciator (in ACS mode only) with 20-character labels. It downloads the label of the corresponding loop device or zone attached to each annunciator point.



**CAUTION:** If multiple SLC devices or zones are attached to single LCD-80 annunciator points, the LCD-80 only saves the last device or zone label to download. Therefore, this feature works best when only one device or zone is mapped to each point.

---

To download to an LCD-80, you must make an RS-232 cable to connect your PC to the LCD-80 as a CRT.

---

**WARNING: POSSIBLE GROUND FAULT CONDITION.**



Most AC power connected PCs will cause a ground fault on the AM2020 network if connected to an LCD-80 RS-232 port. This ground fault current may be sufficient to damage components. Use a battery-powered or transformer isolated PC when downloading to the LCD-80.

---

Note: This feature requires you to maintain the ProComm setup the same way as the \2020\PRO\PROCOMM.PRM file supplied on the OLP diskette. In particular, the “Xlat pause character” must be “@” rather than the default “~.”

To download 20-character labels to the LCD-80:

1. Select Master Database from the main menu.
2. Select LCD-80 from the Master Database menu.

The system prompts:

You are about to Download point labels to an LCD-80 alphanumeric annunciator. The labels will be the 20 character custom label of the associated loop point in the current Master Database.

Up to four sequential annunciator addresses can be selected. The LCD-80 must be set up for 20 character labels.

WARNING—Connecting a PC to an LCD-80 may cause a system ground fault if your PC is connected to AC power.

Connect PC interface cable to LCD-80 CRT port.

DO YOU WISH TO CONTINUE (Y/N)? (enter)

3. Press Y, then <ENTER>.

The system prompts:

Enter the starting annunciator address you wish to download (01-32) (enter)

2 DIGITS REQUIRED!!  
XX

4. Enter the number of the first annunciator address you wish to download, then press <ENTER>.

The system prompts:

Enter the number of the ending annunciator address you wish to download (01-32) (enter)

This number must be no more than THREE MORE than the starting address so no more than FOUR ADDRESSES are downloaded.

2 DIGITS REQUIRED!!  
XX

5. Enter the number of the last annunciator address you wish to download, then press <ENTER>.

The system prompts:

Is (first address) to (last address) the range you wish to download (Y,N)? (enter)

6. Enter Y, then <ENTER>.

PC displays ProComm title screen and prompts:

Verify LCD-80 Program key is removed

Press enter to continue

7. Press <ENTER>.

One moment please.

(wait)

Connect LCD-80 program key now

Programming starts automatically when program key is connected.

A successful download will end with the message:

Download end

Returning to menu

# Modifying the Installed Data Base

---

Once the data base has been loaded, you can modify it using the PC in one of two equipment configurations:

- On System**—with the PC connected to the AM2020/AFP1010 and in the terminal mode to duplicate DIA/CRT functions.

This method is practical only if the changes are minor, since the same change must be repeated to update the data base on OLP. If more than ten changes are required, use the second method:

- Off System**—using the Build/Modify selection from the Master Database menu.

---

## **On System**

While the PC is connected to the system and in terminal emulation mode, you can use it in place of the DIA panel to modify the loaded data.

The data modifying operations are:

- Partial point programming
- Deleting a point from the data base

Procedures for both of these operations are located in Document 15088 and can be used with the PC. Consider all references to CRT operation to be PC directions.

**Note:** To avoid inconsistency between the data base installed in the system and the data base resident on OLP, make changes to the master data base immediately after entering changes into the system data base. This will require you to switch the PC state from terminal mode to data base entry mode.

---

## **Off System**

Make the necessary modifications to the OLP master data base per the procedures given in *Programming a Master Data Base*. Then perform a new download to overwrite the existing data base.

Downloading a modified data base does not delete existing points from the AM2020/AFP1010. This can be done manually using terminal emulation mode or automatically using the procedure found in *Deleting Points from an AM2020/AFP1010*, located in the *Point Reports* section of *Uploading After Installation*.

# Uploading After Installation

After installation is completed, you can use the OLP to print reports and log files or store them for viewing and printing offsite. You can also download stored point reports to the AM2020/AFP1010.

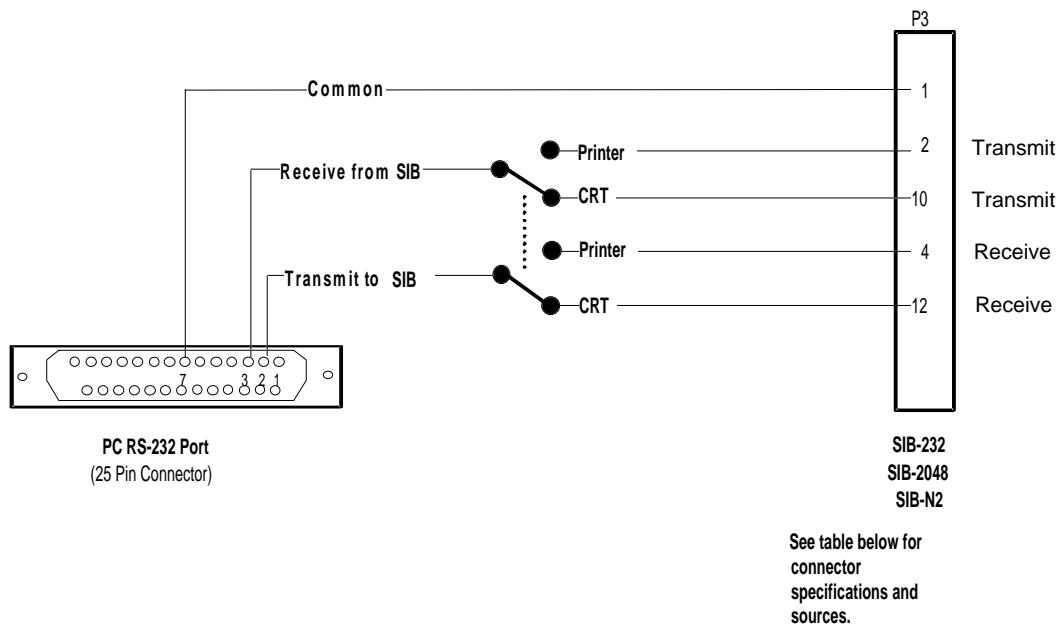
If the AM2020/AFP1010 is already equipped with a printer, you can use it for printout of the reports and files using the full point programming printing procedure of the AM2020/AFP1010.

Two other printing methods are available. The data base installed on the AM2020/AFP1010 may be printed on site using a temporary printer or it may be stored using OLP for offsite printout on any printer.

---

## CRT/Printer Switch

To print reports and log files from a system without a connecting printer cable, you must fabricate a temporary cable for printer connection or configure a special PC cable with a double-pole, double-throw switch for alternate CRT and printer port operation. The latter alternative is recommended for efficient use of OLP. The switch makes it possible to move from printer port to CRT port and back without moving physical connections. A wiring diagram, showing switch connections for the cable, is shown in the next figure.



**Figure 26: CRT/Printer Switch for Single Cable to PC**

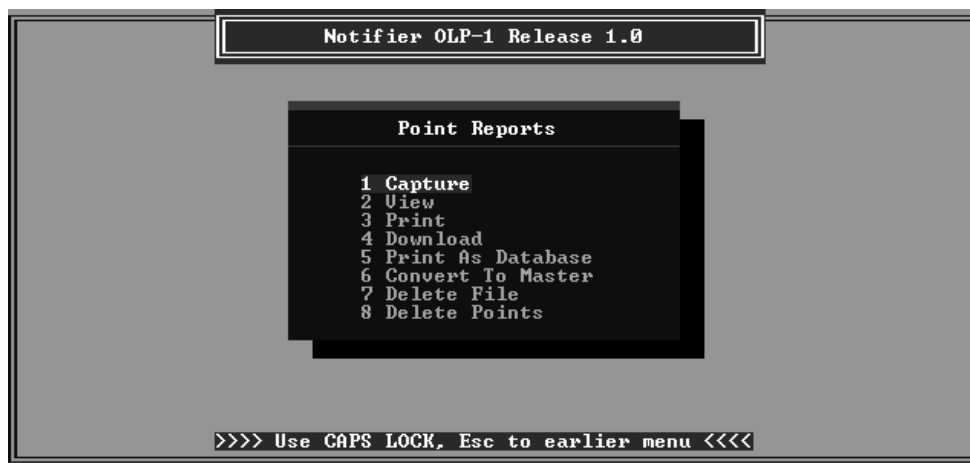
---

## Point Reports

The Point Reports menu item allows you to:

- Save installed point reports (Capture)
- Look at a saved installed point report (View)
- Print a saved installed point report (Print)
- Download an installed point report (Download)
- Print captured installed point reports in master data base format (Print As Database)
- Convert a saved installed point report to a master data base (Convert to Master)
- Erase a saved installed point report (Delete File)
- Erase all points from an AM2020/AFP1010 panel (Delete Points)

See Figure 27 for the Point Reports menu.



**Figure 27: Point Reports Menu**

Option procedures will follow. Each procedure assumes that the program has already been called up and that the Point Reports menu is displayed on the PC.

### Capture Report

To capture a report to a file:

1. Highlight Capture and press <ENTER>.

PC displays prompt:

```
You are about to capture an installed point report using SPL Function
Connect interface cable in PRINTER configuration
Do you wish to continue (Y/N)? (enter)
```



2. Check that the PC is connected to the AM2020/AFP1010 printer port by a printer cable or that the special DPDT switch is set to the PRINTER position, then type Y and press <ENTER>.

PC requests:

Name of Installed Point Report to be captured? (enter)

3. Type appropriate DOS file name determined by you and press <ENTER>.

PC prompts:

Initialize SPL Point Report from DIA when ready

4. At DIA Control Panel, press SPL FUNCTION.

DIA LCD displays:

PRESS 1=RPTS,2=HIS

5. Press push button 1 and <ENTER>.

DIA LCD displays:

PRESS 1=SYS,2=POINT

6. Press push button 2 and <ENTER>.

DIA LCD displays:

PRESS 1=REQUEST,2=ABORT

7. Press push button 1 and <ENTER>.

Transfer of the report to OLP begins. There is a line entry for each system device that lists condition, custom label, zone number, Control-By-Event-interlock statement, and LxxD/Myy address. These entries display on the PC.

At the conclusion of capture, PC displays:

Report capture end

RETURNING TO MENU

The Point Reports menu reappears.

Note: To save a report to a diskette, exit OLP and use standard DOS copy commands. The report will be saved in directory C:\2020\REPORTS under the file name you select.

## View Report

To view a captured report on the PC:

1. Highlight View and press <ENTER>. The following screen appears.



**Figure 28: View Report Menu Screen**

PC prompts:

Highlight Installed Point Report file to view using arrow keys

Press enter to select

2. Highlight the file you would like to view and press <ENTER>.

The first page of the requested report displays on PC. An example report appears in Figure 29.

```
F1-Down, F2-Up, F3-Top, F4-Bottom, Find, Help, Position, Quit
INITIALIZE SPL POINT REPORT FORM DIA WHEN READY

PRESS 1=RPTS, 2=HIS : 1
PRESS 1=SYS, 2=POINT, 3=ALM, 4=TBL, 5=DIS, 6=MONON, 7=CTLON : 2
PRESS 1=REQUEST, 2=ABORT : 1
***** INSTALLED POINT REPORT BEGIN ***** 09:27A 06/01/92
NORMAL FORWARD ZONE ZONE1 Z01
( )

NORMAL FORWARD ZONE ZONE2 Z02
( )

NORMAL FORWARD ZONE ZONE3 Z03
( )

NORMAL FORWARD ZONE ZONE 4 Z04
( )

NORMAL SMOKE (ION) ION DETECTOR 1 V000 M 045 L01D01
(Z04)

NORMAL SMOKE (ION) ION DETECTOR 2 V000 M 046 L01D02
(Z04)
File = \2020\REPORTS\JUNK Top = 1
```

reports

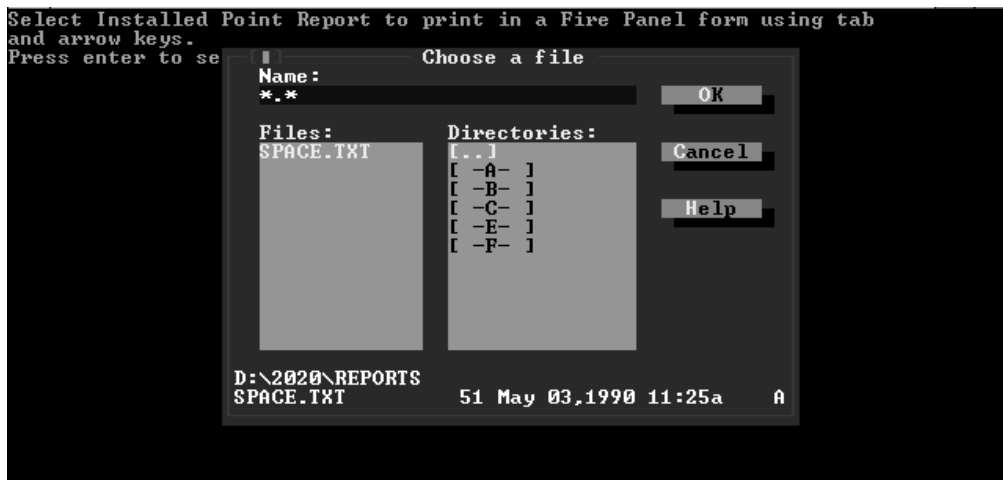
**Figure 29: Example: Viewing a Captured Report**

3. To move through the report page by page, use the function keys described at the top of the report's first page, or the page up/page down keys. To move entry by entry, use the up arrow/down arrow keys.
4. When you finish viewing the report, press Q (Quit).  
Display returns to Point Reports menu.

### Print Report

To print a captured report in AM2020/AFP1010 format:

1. Highlight Print and press <ENTER>. The following screen appears:



**Figure 30: Print Point Reports Menu Screen**

PC prompts:

Highlight Installed Point Report file to print in AM2020 form using arrow keys

Press enter to select

2. Highlight the file you want to print using the arrow keys and press <ENTER>.

PC prompts:

Is (file name) the file you wish to print (Y/N)? (enter)

3. Press Y key and <ENTER>.

PC prompts:

Is printer on-line and ready (Y/N)? (enter)

4. Make sure the printer is ready, then, press Y key and <ENTER>.

The file prints, then the display returns to the Point Reports menu.

## Download Report



**CAUTION:** Do not directly download a captured report if more than 200 points exist. Convert to master data base instead and download by LIBs.

To download a data base report:

1. Highlight Download and press <ENTER>.

PC prompts:

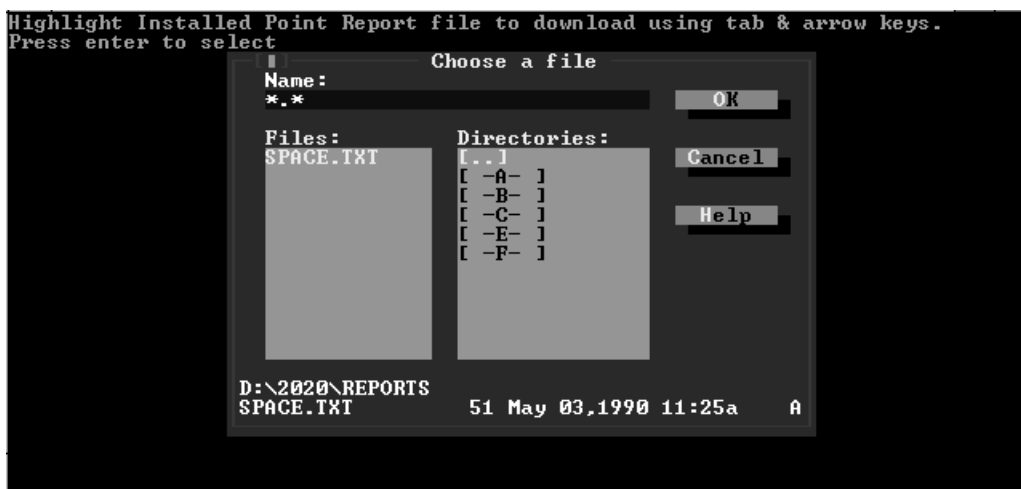
You are about to download a complete database into an AM2020 using a captured Installed Point Report.

If more than 200 points are involved, utilize downloading by LIB option AFTER converting report into Master Database.

Connect interface cable in CRT configuration

Do you wish to continue (Y/N)? (enter)

2. Press Y, then <ENTER>. The following screen appears.



**Figure 31: Download Point Reports Menu Screen**

The system prompts:

Highlight Installed Point Report file to download using arrow keys

Press enter to select

3. Highlight the file you would like to download to the AM2020/AFP1010 and press <ENTER>.

PC prompts:

Is (file name) the file you wish to download(Y/N)?

3. Press Y key and <ENTER>.

PC prompts:

```
ENTER AM2020 LEVEL TWO PASSWORD
```

4. Type in current password and press <ENTER>.

Downloading is ready to start after the download control file is built. The PC displays the ProComm title screen and prompts:

```
Press enter to begin download.
```

Press <ENTER>. The data displays on both the PC and DIA. When downloading is complete, the PC displays:

```
Download end
```

```
Returning to menu
```

The Point Reports menu reappears.

Note: If downloading halts because of an error detected in the point report, convert the report to the master data base and correct it using the procedure specified for master data base downloading.

### Print Report as Data Base

To print a report in master data base format:

1. Highlight Print As Database and press <ENTER>. The following screen appears:

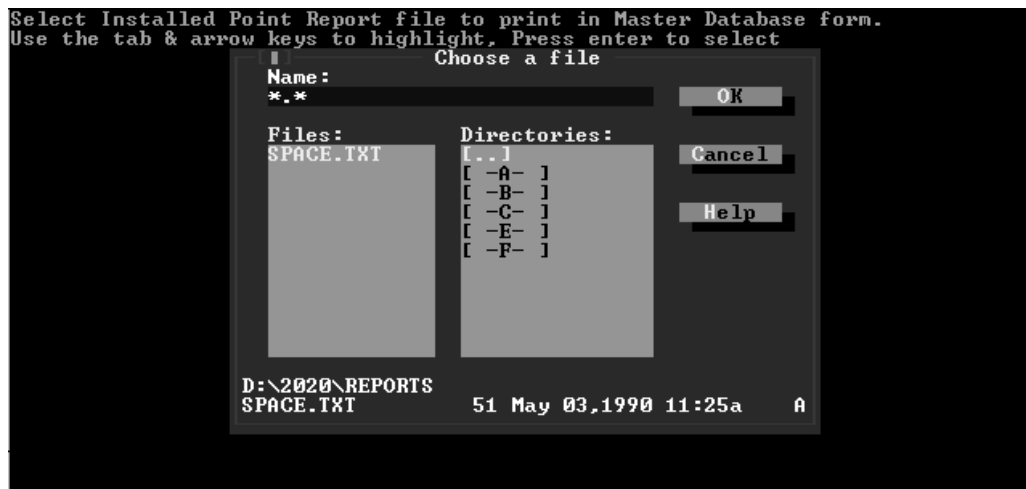


Figure 32: Print As Database Menu Screen

PC prompts:

```
Select Installed Point Report file to print in Master Database form.
```

```
Use the arrow keys to highlight.
```

```
Press enter to select
```

2. Highlight the file you want to print in master data base form and press <ENTER>. PC prompts:  
Is (file name) the file you wish to print in data base form (Y/N)?
  3. Press Y key and <ENTER>. PC prompts:  
Is printer on-line and ready (Y/N)?
  4. Press Y key and <ENTER>. PC will issue the following series of requests:  
ENTER CUSTOMER NAME :  
ENTER MONTH :  
ENTER DAY :  
ENTER YEAR :  
ENTER CONTRACT NUMBER :  
ENTER ENGINEER INITIALS :  
ENTER SALES REP INITIALS :  
ENTER SYSTEM REP INITIALS
  5. Answer each request as it comes up and press <ENTER>.
- As you enter each item, it displays on the printout ID form (Figure 33). When you enter the last item, the printer commences operation.

**Figure 33: Report Heading**

6. When printing stops, the PC returns to the report data base menu display.

## Convert Report to Master Data Base



---

**CAUTION:** Do not use this procedure unless you wish to replace the present OLP master data base with a report in data base form.

---

To convert a report to a master data base:

1. Select Convert To Master and press <ENTER>.

PC prompts:

```
You are about to DELETE EXISTING MASTER DATABASE
and REPLACE it with database derived from captured Installed Point Report.
```

```
Do you wish to continue (Y/N)? (enter)
```

2. Press Y, then <ENTER>.

The system prompts:

```
Select Installed Point Report file to convert to Master Database.
```

```
Use arrow keys to highlight.
```

```
Press enter to select.
```

3. Highlight the file you want and press <ENTER>.

PC prompts:

```
Is (file name) the report you wish to convert (Y/N)? (enter)
```

4. Press Y key and <ENTER>.

Conversion process begins. When completed, the PC displays:

```
SCAN COMPLETE
```

Display of Point Reports menu reappears. You can now use the Master Database menu with the converted data.

## Deleting Report File

This feature allows you to erase a previously captured installed point report from the PC disk while running OLP.

To delete a saved installed report file:

1. Select Delete File from the Point Reports menu. The system prompts:

```
Select Installed Point Report file to Delete using arrow keys.
```

```
Press enter to delete selection.
```

```
DO -NOT- DELETE SPACE.TXT
```

```
Press ESC to bail out of selection.
```

2. Highlight the name of the file you want to delete and press <ENTER>.

The system prompts:

```
Is (\path\filename) the file you wish to Delete (Y/N)? (enter)
```

3. Press Y, then <ENTER>.

The file will be deleted and you will return to the Point Reports menu.

Note: All location numbers will be set to 0000.

### Deleting Points from an AM2020/AFP1010

This feature erases all defined points in the AM2020/AFP1010 panel to allow a fresh download.



**CAUTION: Possibility of lost data.** Use this feature carefully as you can lose your entire data base if you delete the points and then delete the saved installed point report.

---

To delete points:

1. Capture an installed point report from the system to “clean” following the instructions in *Capture Report* (above).
2. Select Delete Points from the Point Reports menu. The system will prompt:

WARNING WARNING WARNING WARNING

You are about to delete all of the points defined in a selected Installed Point Report from the ? controller memory.

Connect interface cable in CRT configuration.

Do you wish to continue (Y/N)? (enter)

3. Press Y, then <ENTER>. The system will prompt:

Select Installed Point Report to guide deleting AM2020 controller points.

Use arrow keys to highlight.

Press enter to select.

4. Highlight the point report you captured in step 1 and press <ENTER>.

The system will prompt:

Is (\path\filename) the file to guide the delete (Y/N)? (enter)

5. Press Y, then <ENTER>. The system will prompt:

ENTER ? LEVEL TWO PASSWORD:

6. Enter the level two password and press enter. The system will call up ProComm, delete the points from the AM2020/AFP1010 panel, and return to the Point Reports menu.



---

## Using Point Reports When Upgrading AM2020/AFP1010 Firmware

If you want to upgrade your AM2020/AFP1010 firmware to a higher revision, follow the procedure below:

1. Capture an installed point report before changing firmware.
2. Exit to DOS.
3. Restart OLP.
4. Choose the OLP revision that corresponds to the **new** firmware revision.
5. Go back to Point Reports.
6. Convert the report captured in step 1 to a master data base.

This procedure provides you with a new revision master data base that you can edit and download according to your requirements.

Note: AM2020/AFP1010 firmware upgrades can normally be done without disturbing existing programming.

---

## Activity Log

Activity log files are created to record results of tests made on sensors and other monitoring devices. The Activity Log function serves to store, in memory, all of the activities that would have been traditionally displayed on the local CRT. OLP's Activity Log feature allows you to:

- | Save an activity log to a PC file (Capture)
- | Look at a saved activity log (View)
- | Print a saved activity log (Print)
- | Erase a saved activity log (Delete)

Activity log files are stored in the \2020\LOG directory. Figure 34 shows the Activity Log menu.



**Figure 34: Activity Log Menu**

To access this feature, select Activity Log from the main menu.

## Capture

To capture a log file while running a system test:

1. Highlight Capture and press <ENTER>.

PC prompts:

You are about to open a log file to capture information that appears on screen and send it to disk.

SET CABLE TO CRT CONFIGURATION

Do you wish to continue (Y/N)? (enter)

2. Connect interface cable in CRT configuration, and press Y key and <ENTER>.

PC prompts:

Name of log file to open?

3. Type an appropriate DOS file name and press <ENTER>.

PC prompts:

Do you wish auto acknowledge enabled (Y,N)? (enter)

4. Press Y or N key as desired and <ENTER>.

PC prompts:

Log file (name) is open

Press ALT X to close log and exit

5. Proceed on installation rounds and manually activate system sensors and monitors. On return, type <ALT> X if auto acknowledge is not used, or <ESC>, <ALT> X if auto acknowledge is used.

File closes. Display returns to log files menu.

Note: For generic logging, reply N (no) to auto acknowledge prompt.

If you enable auto acknowledge, OLP automatically acknowledges alarms and troubles after a short delay. In addition, signal silence is selected a few seconds after an alarm is reported. This may be useful in some test situations.



**WARNING:** Do not leave auto acknowledge enabled in any situation where the AM2020/ AFP1010 may be needed to report a true alarm.

---



---

**CAUTION:** OLP looks for the text `TROUBL`, `CLR`, or `ALARM` to trigger the auto acknowledge feature. If one of these strings appears in a 20-character point label or in a point type, the auto acknowledge feature may be triggered incorrectly.

---

## **View**

To view a log file:

1. Highlight View and press <ENTER>.

PC prompts:

Highlight Log file to view with arrows

Press enter to select

2. Highlight the file you want and press <ENTER>.

First page of requested log file displays on the PC.

3. To move through the report page by page, use page up/page down keys. To move entry by entry, use up arrow/down arrow keys.

4. When finished with viewing, press Q (Quit).

Display returns to Activity Log menu.

## **Print**

To print a log file:

1. Highlight Print and press <ENTER>.

PC prompts:

Highlight log file to print using arrows

Press enter to select

2. Highlight file you want to print and press <ENTER>.

PC prompts:

Is (\path\filename) the file you wish to print(Y/N)? (enter)

3. Press Y key and <ENTER>.

PC prompts:

Is printer on-line and ready (Y/N)? (enter)

4. Press Y key and <ENTER>.

Printing starts. When printing is completed, the display returns to Activity Log menu.

## Delete

To delete an activity log file:

1. Highlight Delete in the Activity Log menu and press <ENTER>.

The system prompts:

```
Highlight Log file to Delete with arrow keys
Press enter to select
DO -NOT- DELETE OPEN.CMD
Press ESC to bail out of selection
```

2. Highlight the file you want to delete and press <ENTER>.

The system prompts:

```
Is (\path\filename) the file you wish to Delete (Y/N)? (enter)
```

3. Press Y, then <ENTER>. The system deletes the file, then returns to the Activity Log menu.

---

## Data Base Transfer

It may be necessary to download data bases at different locations on the same workday. This requires you to store the extra data base(s) on separate disks or in separate directories, as OLP can store only one master data base in its MASTER subdirectory at one time.

## Export

To copy the master data base from OLP to diskette or directory:

1. Select Export from the Master Database menu. The system prompts:

```
You are about to Export Master Database to another disk or directory.
The Exported file may be Imported to the Master Database if desired.
Do you wish to continue (Y/N)? (enter)
```

2. Press Y, then <ENTER>. The system prompts:

```
Enter drive letter for Export (A, B, C, D, E) (enter)
```

3. Enter the letter of the destination drive and press <ENTER>. The system prompts:

```
Enter sub directory for export [\path] (optional) (enter)
```

4. Enter the path to store the file (i.e., \JOB1) and press <ENTER>. The system prompts:

```
Enter file name you wish to use (name) (enter)
```

5. Enter the file name (i.e., PANEL1) and press <ENTER>. The system prompts:

```
Is (drive:\path\filename)
the correct area for Export (Y/N)? (enter)
```

6. Press Y, then <ENTER>. The system exports the information, then returns to the Master Database menu.

## Import

To copy the stored master data base back to OLP:

1. Select Import from the Master Database menu. The system prompts:

```
You are about to Import Master Database
from another disk or directory where it was previously Exported.
Only Exported file can be Imported.
This process will DELETE EXISTING MASTER DATABASE

If you wish to save existing Master Database,
go to Export Database option in Master Database menu.

Do you wish to continue (Y/N)? (enter)
```

2. Press Y, then <ENTER>. The system will prompt:

```
Enter drive letter that contains database to Import (A,B,C,D,E) (enter)
```

3. Select the drive letter that contains the previously exported data base, then press <ENTER>. The system displays a menu with file and/or directory names.

4. Highlight a subdirectory (if used) with the arrow keys and press <ENTER>. Select a data base to import (.dta only) with the arrow keys, then press <ENTER>. The system prompts:

```
Is (drive\path\filename) the database to Import (Y/N)? (enter)
```

5. Press Y, then <ENTER>. The system will copy the database to the OLP directory, clean up the deleted records index, then return to the Master Database menu.

Note: You do not need to clear the master data base before using this feature.

---

## ***Clearing the Data Base***

To delete the master data base from OLP before entering a new one manually, select Clear from the Master Database menu. The system prompts:

```
You are about to erase existing Master Database.

Do you wish to continue (Y/N)? (enter)
```

Press Y, then <ENTER>. The system will clear the data base and return to the Master Database menu.

# Shutdown

---

## ***Exiting From OLP***

To exit OLP:

1. Press <ESC> to return to main menu display, if in another menu.
2. Highlight Exit To DOS and press <ENTER>.

---

## ***Equipment Turnoff***

On conclusion of data base entry and all follow-on operations, power down the PC, the printer used, and the AM2020/AFP1010 system.

---

IMPORTANT	DO NOT turn off the PC unless you have exited to DOS. Turning off the PC before then may damage the master data base files.
-----------	---

---

---

## ***Restoring AM2020/AFP1010 Configuration***

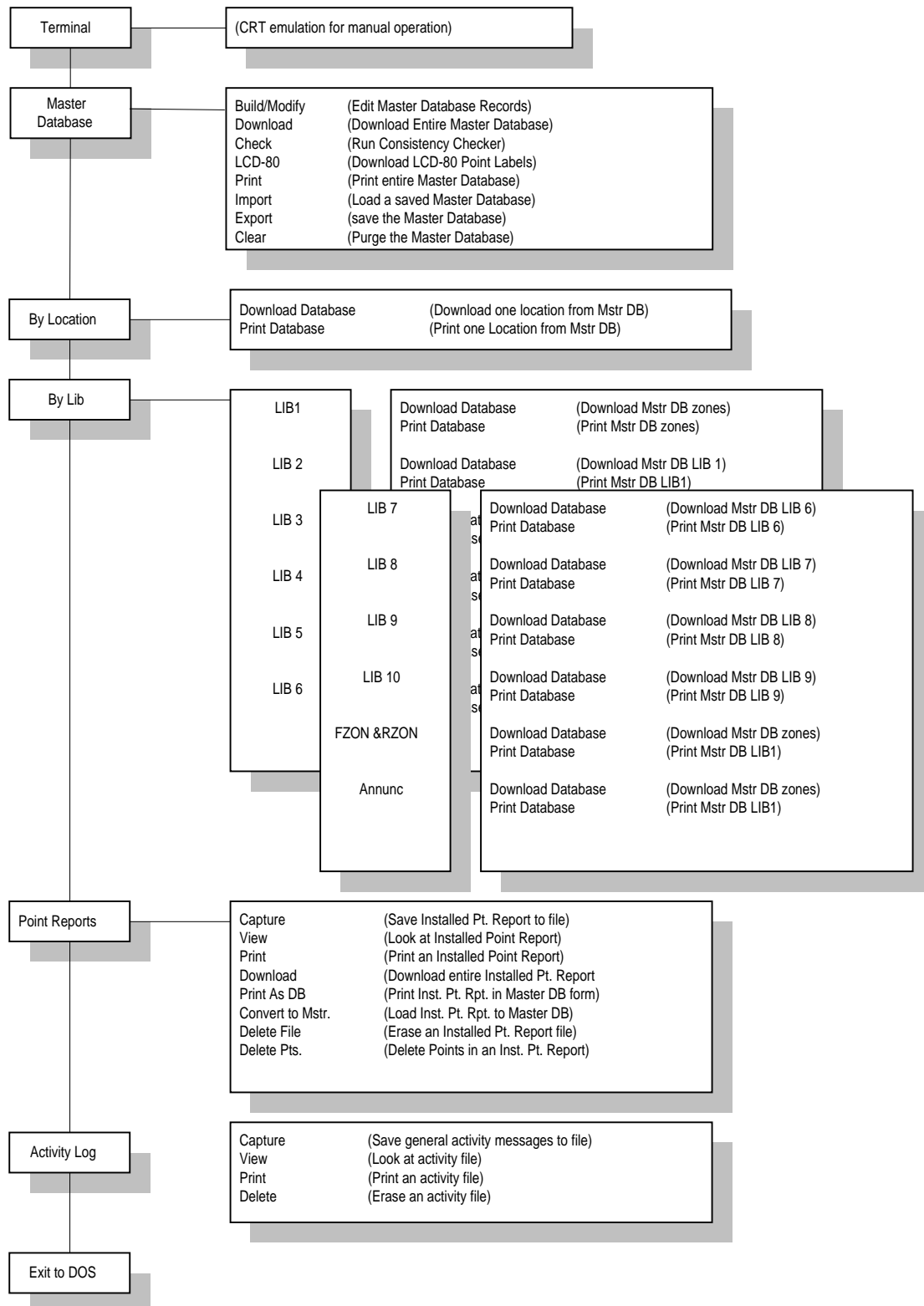
To restore AM2020/AFP1010 configuration:

1. Disconnect the PC from the system's CRT or printer cable.
2. If the system operates on-line with a CRT and/or printer, reconnect them.
3. Disconnect any nonsystem equipment used and remove any fabricated cable equipped with the DPDT switch.
4. If the system operates on-line without an SIB, delete the board from the AM2020/AFP1010 data base following the procedure in the *Full System Programming*, then power down and pull the SIB card from the AM2020/AFP1010. Return it to the original source.
5. Replace any LIB boards that may have been removed in the course of data base operations.
6. On the DIA panel, reset the terminal supervision and status lines back to their original states using the procedures of the *Full System Programming* section. The option responses to enable supervision and status line are pictured next.

```
PRESS 1=INST,2=STY,3=TDLY,4=AVPS,5=ZBND,6=EXTEQ,7=LOCP,8=ISIB,9=PARM      :6
DO YOU WANT TO CHANGE THE TERMINAL SUPERVISION? (Y=YES,N=NO)              :Y
DO YOU WANT THE TERMINAL SUPERVISION ENABLED? (Y=YES,N=NO)                 :N
DO YOU WANT TO CHANGE THE TERMINAL STATUS LINE? (Y=YES,N=NO)               :Y
DO YOU WANT THE TERMINAL STATUS LINE ENABLED? (Y=YES,N=NO)                 :N
```

**Figure 30: Enable Terminal Settings**

# Appendix A: OLP Menu Tree



## ***Limited Warranty***

**NOTIFIER®** warrants its products to be free from defects in materials and workmanship for eighteen (18) months from the date of manufacture, under normal use and service. Products are date stamped at time of manufacture. The sole and exclusive obligation of **NOTIFIER®** is to repair or replace, at its option, free of charge for parts and labor, any part which is defective in materials or workmanship under normal use and service. For products not under **NOTIFIER®** manufacturing date-stamp control, the warranty is eighteen (18) months from date of original purchase by **NOTIFIER®**'s distributor unless the installation instructions or catalog sets forth a shorter period, in which case the shorter period shall apply. This warranty is void if the product is altered, repaired or serviced by anyone other than **NOTIFIER®** or its authorized distributors or if there is a failure to maintain the products and systems in which they operate in a proper and workable manner. In case of defect, secure a Return Material Authorization form from our customer service department. Return product, transportation prepaid, to **NOTIFIER®**, 12 Clintonville Road, Northford, Connecticut 06472-1653.

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