

Printer Output Format on AFP-2800/XLS-2000

Event(max 18 char)	Zone	Point	Label(max 28 characters)	Date	Time
V2/V3/V4 Common Event Format					
:ALARM	Z001	1.1.Z1	AZF 1 ON MODULE 1 (28 CHAR)	12/08	01:23;
:FAULT	Z001	1.1.Z1	AZF 1 ON MODULE 1 (28 CHAR)	12/08	01:23;
:ISOL	Z001	1.1.Z1	AZF 1 ON MODULE 1 (28 CHAR)	12/08	01:24;
:DE-ISOLATE	Z001	1.1.Z1	AZF 1 ON MODULE 1 (28 CHAR)	12/08	01:24;
:ISOL ALARM	Z001	1.1.Z1	AZF 1 ON MODULE 1 (28 CHAR)	12/08	01:22;
:ACKD ALARM	Z001	1.1.Z1	AZF 1 ON MODULE 1 (28 CHAR)	12/08	01:23;
System Fault Format:					
:MAINS FAIL	Z000	0.2.I5	MAINS FAIL	11/12	15:08;
:CHARGER LOW	Z000	0.2.I7	CHARGER LOW	11/12	15:08;
:BATTERY LOW	Z000	0.2.I6	BATTERY LOW	11/12	15:08;
:RESET FAULT	Z000	0.2.I6	BATTERY LOW	11/12	15:09;
:COMMS FAIL	Z000	1.0.--	UNNAMED POINT	11/12	15:09;
:COMMS PROC FL	Z000	4.0.--	UNNAMED POINT	11/12	15:10;
:NO REPLY	Z000	L1	UNNAMED POINT	11/12	16:39;
:COMMS PROC FL	Z000	3.0.--	UNNAMED POINT	11/12	16:40;
:RING BROKEN	Z000	1.0.--	UNNAMED POINT	11/12	16:46;
:NO REPLY	Z000	1.1.--	UNNAMED POINT	11/12	16:46;
V2/V3 Specific Event Formats					
:RESET ALARM	Z001	1.1.Z1	AZF 1 ON MODULE 1 (28 CHAR)	12/08	01:23;
:FAULT SELF CLEARED	Z001	1.1.Z1	AZF 1 ON MODULE 1 (28 CHAR)	12/08	01:24;
:ACTIVE SELF CLR	Z000	VP3	AZF 1 ON MODULE 1 (28 CHAR)	27/05	22:35;
:ALARM SELF CLEARED	Z001	1.1.Z1	AZF 1 ON MODULE 1 (28 CHAR)	12/08	01:23;
:FAULT (F01)	Z001	L2D159	SOUTH WEST ENTERANCE DET	11/12	14:11;
:FAULT (F21)	Z000	L10M158	SOUTH WEST ENTERANCE RELAY	11/12	14:11;
V4 Specific Event Formats					
:RESET	Z001	0.1.Z1	AZF 1 ON MODULE 1 (28 CHAR)	27/05	22:35;
:ALARM CLEARED	Z001	0.1.Z1	AZF 1 ON MODULE 1 (28 CHAR)	27/05	22:35;
:FAULT CLEARED	Z001	0.1.Z1	AZF 1 ON MODULE 1 (28 CHAR)	27/05	22:33;
:ACTIVE CLEARED	Z000	VP3	AZF 1 ON MODULE 1 (28 CHAR)	27/05	22:35;
:FAULT F01	Z001	L2D159	SOUTH WEST ENTERANCE DET	11/12	14:11;
:FAULT F21	Z000	L10M158	SOUTH WEST ENTERANCE RELAY	11/12	14:11;
V3/V4 Network Fault Format					
:NODE DOWN	Z000	N8.	UNNAMED POINT	11/12	16:42;
:PORTA FLT	Z000	0.13.Z2	UNNAMED POINT	11/12	16:42;
:PORTB FLT	Z000	0.13.Z3	UNNAMED POINT	11/12	16:42;
:RST FLT(REM UP)	Z000	N8.	UNNAMED POINT	11/12	16:43;
:PORTA UP	Z000	0.13.Z2	UNNAMED POINT	11/12	16:43;
:PORTB UP	Z000	0.13.Z3	UNNAMED POINT	11/12	16:43;

Start positions in output string for each field:

Event - First character in each event is a ':' followed by max 18 characters for a description

Zone - Zone number is max 4 characters long and starts at position 21

Point - Point address is max 13 characters long and starts at position 26

Label - Label is max 28 char long and starts at position 40

Date - Date is max 5 characters long and starts at position 69

Time - Time is max 5 characters long and starts at position 75

There is a ';' at the end of each line (position 80) followed by a carriage return (ASCII chr 13) and a line feed (ASCII chr 10)

AFP-2800/XLS-2000 Printer/Pager/HLI Interface

Overview

AFP-2800/XLS-2000 can be interfaced to serial printers, pagers and nurse call systems using the printer port on the CPU (CONN1). A global option on the FIP will enable/disable printing. Any standard terminal program or the AFP-2800 PCI history upload tool can be used to monitor the output of this port.

AFP-2800 Printer Port (Conn1) Settings	
Mode	RS-232
Baud Rate	9600
Data Bits	8
Stop Bits	1
Parity	Odd
Handshaking	Hardware CTS/RTS

FIP to Printer Cable

AFP-2800 Printer Port (DB9 Male) Labelled CONN1	Printer Connector (DB25)	Printer connector (DB9)
Pin 2 (RX)	-	-
Pin 3 (TX)	Pin 3 (RX)	Pin 2 (RX)
Pin 5 (REF)	Pin 7 (REF)	Pin 5 (REF)
Pin 7 (RTS)	-	-
Pin 8 (CTS)	Pin 4 (RTS)	Pin 7 (RTS)

Notes:

- Pin 8 (CTS) on the CPU side has to be high (+5v) for AFP-2800 to print. If the printer/pager does not support Hardware handshaking (RTS signal), link pin 7 and 8 (on the CPU side) to allow printing without handshaking.
- A global option on the FIP will enable/disable printer output.

AFP-2800/XLS-2000 Modem Interface

Overview

The AFP-2800/XLS-2000 PC Interface can be used to control the FIP using a modem and AFP-2800 PCI software. A global option on the FIP will enable/disable modem operation.

PC Modem

Any non software modem should work correctly with the PCI. It is recommended to use a high quality external modem to allow modifying of modem parameters to solve any possible compatibility issues.

FIP Modem

The recommended modem for the FIP is a NetComm IG6000 (industrial modem) that is modified to work with 24VDC. This modem was chosen due to its construction and reliability. NIFS part number is [10972](#).

Modem to FIP Cable

The modem is connected to the CPU debug port and uses a **special** serial cable with pin connections outlined below:

AFP-2800 Debug Port DB9 (male) Labelled CONN2	Modem Connector DB9 (male)	Modem Connector DB25 (male)
Pin 2 RX	Pin 2	Pin 3
Pin 3 TX	Pin 3	Pin 2
Pin 5 GRND	Pin 5	Pin 7
Pin 7 RTS	Pin 4	Pin 20
	Pin 7 linked to 8	Pin 4 linked to 5

Notes:

- All other pins should be left disconnected.
- The cable is uni-directional. When making the cable, make sure that each end is marked correctly as either CPU or Modem.
- This cable can not be used to change the AT settings of the modem. A standard modem cable (modem to PC) should be used for the next step.

FIP Modem Settings

The FIP modem needs to be programmed with the following AT commands using a terminal program such as HyperTerminal and the standard modem to PC cable provided:

Use “AT S0=2 R115 &K3 &S0 %E2” command to set the required modem options

ATS0=2 - answer after 2 rings
ATR115 - lock terminal speed to 115000
AT&K3 - RTS/CTS flow control
AT&S0 - DSR signal always asserted
AT%E2 - Automatic speed stepping

To establish connection with the modem after the above commands have been entered, set HyperTerminal port settings to 115 baud rate & RTS/CTS handshaking.

After re-connecting to the modem using the above settings, save the configuration to hardware profile 0 using the **AT&W0** command.

Check modem configuration using **AT&V** command. Ensure that all the options are the same as the configuration printout below:

```

B0 E1 L1 M1 T Q0 R115 V1 W2 X5 &B4 &C1 &D2 &G0 &H0 &K3 &L0 &M0 &N1 &P1 &R0 &S0
&T4 &X0 &Y0 \A3 \B3 \J0 \K5 \N3 \T0 \V0 \X0 #A2 #B0 #C0 #D0 #E0 #F0 #I0 #J1
#M0 #N0 #O0 #Q0 #U0 #V0 %B0 %C3 %D0 %E2 %F1 %G0 %H0 %K0 %L11 %M0 %N0 %P0 %R0
%S0 %T0 %U0 %V0 %W0 *K0 *V0 *R0 *T0 *Y0 -Q1 :E1 -SDR0,1 #CID0 #MUS0
S000:002 S002:043 S003:013 S004:010 S005:008 S006:004 S007:050 S008:004
S009:006 S010:018 S011:095 S012:050 S018:000 S025:005 S026:000 S030:000
S033:003 S042:002 S043:015 S045:098 S047:030 S066:010 S067:042 S069:060
S076:080 S077:010 S105:030 S110:004 S126:061
&Z0 = &Z1 =
&Z2 = &Z3 =
&Z4 = &Z5 =
&Z6 = &Z7 =
&Z8 = &Z9 =
Last dialled = T2
+MS: 12,1,300,56000,1,0
Access Security: OFF Security Database, Security Mode & Call-Log Erase: FREE
Stored Phone Numbers: DISPLAYED OutDial: ENABLED
Caller ID: DISABLED DES: 64bit
Internal Storage (#MEM): Enabled when DTR off: 4 Voice Messages
#ALM1=0, #ALM2=0, PIN number =1234

```