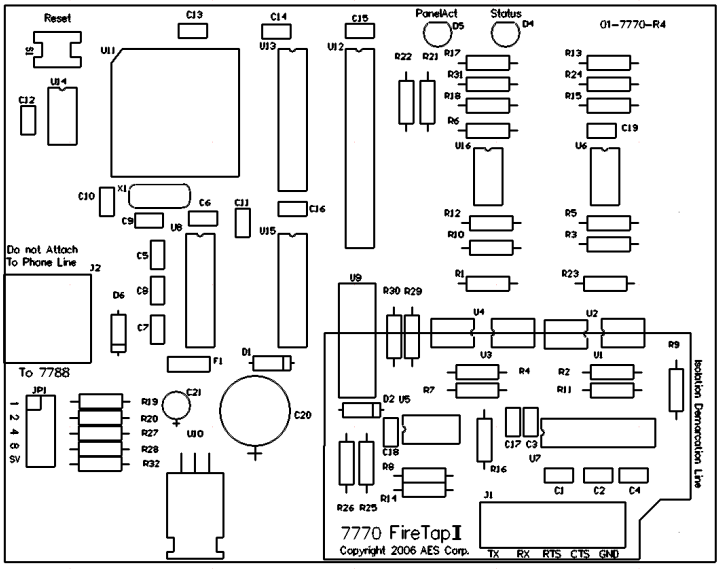
AES•FireTap
Model 7770

Supplemental Alarm Reporting Device



FireTap Installation and Operation Manual

AES Corporation
285 Newbury Street. Peabody, Massachusetts 01960-1315 USA
Tel: USA (978) 535-7310. Fax: USA (978) 535-7313

AES•FireT*ap*™ 7770

FireTap Installation & Operation Manual

1. Summary

The AES Model 7770 FireTap™ can monitor specific serial data source. Typically, it retrieves Point ID data from a Fire Alarm Control Panel (FACP) and forwards this data to the central station via an active network radio system. When an event occurs, the FACP outputs data to the FireTap, which analyzes this data using special personality software. Next, the FireTap formats the data appropriately and passes it to the Radio Subscriber Unit in which it is mounted.

The FireTap interfaces via RS232 to the FACP using its printer or CRT port. When an FACP port is interfaced to the FireTap, that port must be dedicated exclusively to the FireTap interface.

Full Supervision of the FACP link is performed when permitted by the FACP and it is the responsibility of the installer to determine this. This manual describes how to connect, program, and test the 7770 with the supported FACP panels.

2. COMPATIBILITY and COMPLIANCE

2.1 Radio Network Compatibility

2.1.1 Remote

The FireTap is an accessory for the AES models 7750-F4x4, 7750-F8, 7744F and 7788F Radio Subscriber Units with Version ESB/SUB 1.71 or later. UL listing is applicable only for the 7750-F8 and F4X4, 7744F and 7788F

2.1.2 Central

All ***IntelliTap*** compatible **AES-*IntelliNet*** receivers accept FireTap packets and forward the data to an alarm monitoring system for annunciation, display and printout.

7701, 7703/Net77, 7705I MultiNet, Receivers will accept FireTap packets. Some earlier versions may require an upgrade.

2.2 FACP Compatibility (supported panels)

7770 firmware Revision 11 supports the following panels.

2.2.1 Notifier ONYX Series

Models NFS-320, NFS-640 and NFS-3030.

2.2.2

2.2.3 GAMEWELL Identiflex IF600 SERIES

Models IF610, IF632, IF654, and the IF658.

2.2.4 FIRE-LITE MS-9200

Model 9200UD.

2.2.5

2.2.6 SILENT KNIGHT using the 5824 Serial Port module

Silent Knight models 5700, 5800, 5820XL.
Farenheit models IFP-50, IFP-100, IFP-1000, and IFP-2000.

2.2.7

2.2.8 GE Est-i

2.2.9 GE vigilant

2.2.10

2.2.11 Siemens MXL

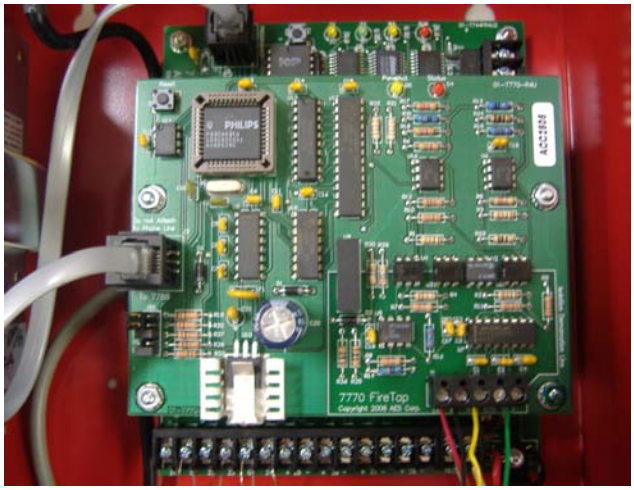
2.2.12

2.2.13 FCI-7100

2.3 UL Compliance Notes

- The 7770 FireTap unit must be mounted inside an AES 7750-F4x4 or F8 and 7788F ,7744F Subscriber Units.

3. Installing the FireTap on the subscriber unit



The FireTap is installed within the Subscriber Unit as shown above:

- Remove four (4) lower nuts holding main board inside box. Save these nuts.
- Install 4 standoffs (provided) in place of nuts. These secure the subscriber unit circuit board and provide a mount for the "TAP". Do not over tighten.
- Mount FireTap board on standoffs. Secure with 4 nuts removed earlier.
- Earth ground must be connected to lower right terminal.
- Install 6-wire modular cord (provided) between FireTap and subscriber main board for power and data.

As seen in the above figure, the FireTap connects to the Subscriber Unit via an AES supplied cable with a modular jack on each end. Serial (FACP) data enters the FireTap via an optically isolated RS232 port. Connection is made via a cable to be provided by the installer. The FACP and Subscriber Unit must be in the same room using protected wiring such as in conduit.

For specific FACP wiring and interconnection, see topic 0 -

Panel specific setup, on page 12, and for generic installation details see topic 0 - Connecting the FireTap to the FACP, on page 10.

For details on how to interface the Subscriber Unit with the Intellinet network, see the documentation of the Subscriber Unit where the 7770 is being installed.

4. LED indicators Patterns

Normal 7770 Heart Beat Pattern = Red **Status** LED (D4) Blinks (Equal On, and Off Times) at about **2 blinks** per second.

Error Unsupported FACP Panel = Red **Status** LED (D4) **Long On** (2 Seconds), Followed by **Short Off** (1/2 Second).

Successful Event Delivery (Received a data from FACP, created ContactID Message, and Received Acknowledgment from Radio Subscriber) = Yellow **PanelAct** LED (D5) **On,** Red **Status** LED (D4) **Off** for **2 Seconds**.

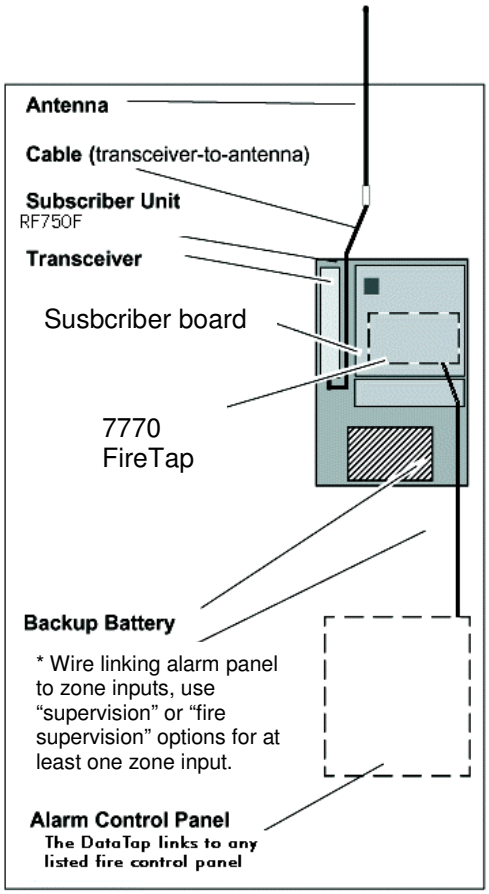
Receiving Data from FACP = Yellow **PanelAct** Led Blinks when data is present on Isolated FACP Serial Port.

5. Overview

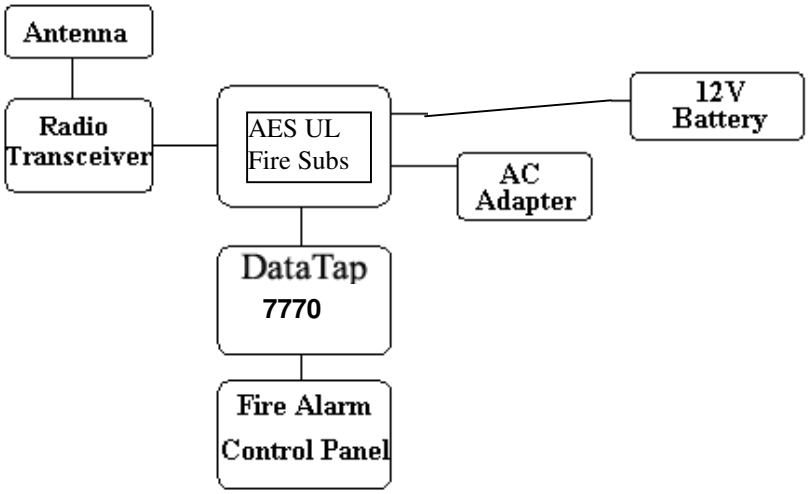
Power Requirements: The FireTap is powered by 12VDC received from the Subscriber Unit via J1. It adds 90ma of current drain that must be included in the overall standby calculations.

Backup Battery: In all cases, a 12V, 7A-Hr battery provides 24-hour backup for a FireTap/Subscriber Unit combination.

Signaling Service: Supplemental signaling per UL864 is provided; signals received at central from the FireTap must be programmed as lowest in priority (UL864 category "other") at the alarm monitoring system. Note that other signals received due to changes at the Direct Connect inputs of the Subscriber Unit in which the FireTap is located can be programmed as necessary.



Physical Installation



Block Diagram

For information on the Subscriber Unit installation, see the appropriate manual.

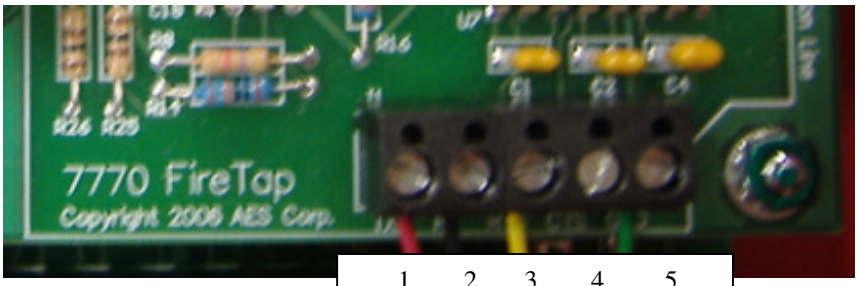
6. Connecting the FireTap to the FACP

6.1 Serial Data Connections

All FACP serial data connections to the 7770 are made via the Isolated RS232 barrier strip (J1 on the 7770 board). There are terminals for bi-directional data signals, bi-directional handshake signals and signal ground.

Pin out for connections to J-1 are as follows ().

Isolated RS232 Position	Signal Name	Direction
1	TxData	From FireTap
2	RxData	To FireTap
3	RTS	To FireTap
4	CTS	From FireTap
5	SignalGround	N/A



7. Contact-ID Explained

Contact-ID is the digital receiver format used within the active network radio system. FireTap personality software converts the FACP data to Contact-ID format for forwarding to the Radio Subscriber Unit. At the central, the AES Receiver outputs Contact-ID formatted data alarm monitoring system.

Contact-ID is a transmission format enabling transmission of alarm and trouble conditions on a point-by-point basis. Four groups of information are transmitted to the central receiver: a four-digit account number, a three-digit event code, a group number (00 to 99), and a device or zone number (000 to 999). The account number is the Radio Subscriber number. The event codes have industry standard definitions. The group and device numbers are used to transmit the point ID's of the FACP's initiating and control devices. For small-size (1 or 2 SLC loop) panels, and for basic installation of medium or large-size panels, the group number will usually be 00. The details of the point ID to Contact-ID group and device number conversions are given in the following sections describing operation with each FACP.

7.1 Contact-ID Event Codes

The most commonly used event codes by FireTap are the following:

FACP Signal Type	Contact-ID Event Code	
Fire Alarm	110 Fire Alarm (If the FACP services the type of initiating device, these are also used.) 111 Smoke Alarm 113 Waterflow Alarm 114 Heat Alarm 115 Pull Station 116 Duct Alarm	
Pre-Alarm signals	118 Near Alarm	
Security Alarm signals	130 Burglary	
Unspecified Alarms	140 General Alarm	
Supervisory signals	200 Fire Supervisory	
SLC Loop Fault	371 Protection Loop Open 372 Protection Loop Short	or,
Initiating Device Trouble	380 Sensor Trouble 389 Sensor Test Fail 392 Drift Compensation Error 393 Maintenance Alert	or, or, or,
Panel Power Fault	301 AC Loss 302 Low Battery 310 Ground Fault	or, or,
Output Circuit Fault	320 Sounder/Relay Trouble 321 Bell/Siren #1 Trouble 326 NAC #3 Trouble (Note: the actual Bell or NAC number will be in the device number field.)	or, or,
Unspecified Fault	300 System Trouble	
Initiating Device Disable	570 Zone Bypass 571 Fire Bypass	or,
Output Circuit Disable	520 Sounder/Relay Disable 521 Bell/Siren #1 Disable 526 NAC #3 Disable (Note: the actual Bell or NAC number will be in the device number field.)	or, or,
Fire Drill Panel Walk-Test	601 Manually Triggered Test 607 Walk Test Mode	and,
Panel Reset	305 System Reset	

8. Panel specific setup

8.1 Notifier ONYX Series

Models NFS-320, NFS-640 and NFS-3030.

8.1.1 Fire panel connection to 7770

NFS-340 EIA –232 PC/CRT Port TB12.

The AES 7770 FireTap II attaches to the Notifier EIA-232 PC/CRT Serial Port (TB12). TB12 Port is a 6 terminal connector. The leftmost 3 terminals 1,2, and 3 are labeled *Printer*, and terminals 4,5, and 6 are labeled *PC/CRT* on the Printed Circuit Board. The 7770 interfaces to the rightmost 3 terminals.

The only supported baud rate on this port is 9600.

Three wires are attached between TB12 on the NOTIFIER FACP, and J1 on the AES 7770 FireTap. TB12's Terminal 4 (Tx) is wired to the 7770 FireTaps 'Rx' Terminal.
TB12's Terminal 5 (Rx) is wired to the 7770's 'Tx' Terminal
TB12's Terminal 6 (Gnd) is wired to 7770's 'Gnd' Terminal.

7770 JP1		Notifier TB12
Tx	→	Terminal 5
Rx	→	Terminal 4
Gnd	→	Terminal 6

8.1.2 Connection supervision

The connection between the 7770 and the FACP is supervised by the 7770. That means that if the 7770 is disconnected from the FACP, the 7770 will issue an alarm message. The FACP also supervises the connection, and it will also trip the trouble relay.

8.1.3 Fire panel programming

CRT Serial Port

From the "**SYSTEM NORMAL"** screen, press **ENTER** key to display the Program Entry screen.

1 = PROGRAMMING 2 = READ STATUS ENTRY **(ESCAPE TO ABORT)**

Press the "1" key. Panel prompts for Password.

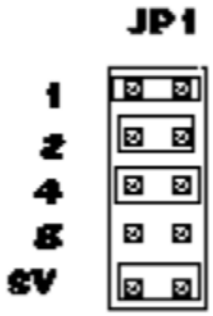
ENTER PROG OR STAT PASSWORD, THEN ENTER **(ESCAPE TO ABORT)**

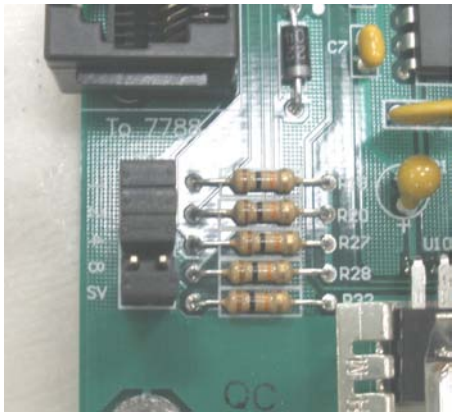
Enter **CRT96** and then press ENTER key. Note:Panel displays asterisks for each password character typed.

Press the **ESC** key twice to return to "**SYSTEM NORMAL**" Note: to revert back (no CRT) repeat steps above, but type **NOCRT** in place of CRT96

8.1.4 7770 FireTap JP1, FACP Selection Jumpers

Notifier Protocol is selected by placing shorting bars onto terminals **1, 2,** and **4** on **JP1**. This also selects **9600** Baud. Also Place a shorting bar on to the **SV** terminal of **JP1**





8.1.5 Notifier to Ademco CID Translations

Description	Notifier Point	Point Address (CID zone)	Notes
Loop 1, Module 1 - 64	**1M001 - 1M064**	**001 - 064**	
Loop 2, Module 1 - 64	**2M001 - 2M064**	**065 - 128**	
Loop 1, Module 65 - 128	**1M065 - 1M129**	**129 - 192**	
Loop 2, Module 65 - 128	**2M065 - 2M129**	**193 - 256**	
Loop 1, Module 129 – 159	**1M129 - 1M159**	**257 - 287**	**288 Not Used.**
Loop 2, Module 129 - 159	**2M129 – 2M159**	**289 - 319**	**320 Not Used.**
Loop 1, Detector 1 – 64	**1D001 – 1D064**	**321 - 384**	
Loop 2, Detector 1 – 64	**2D001 – 2D064**	**385 - 448**	
Loop 1, Detector 65 - 128	**2D065 – 2M128**	**449 – 512**	
Loop 2, Detector 65 – 128	**2D065 – 2D128**	**513 - 576**	

8.1.6 Examples of CID translations

ALARM: PULL STATION INTENSIVE CARE UNIT WEST ENTRNCE Z012 12:30P 050206 2M059
7770 FireTap Translation = “1234 18 E115 04 C123” Alarm 2M059

ALARM: WATERFLOW INTENSIVE CARE UNIT WEST ENTRNCE Z010 12:31P 050206 1D012
7770 FireTap Translation = “1234 18 E113 01 C012” Alarm 1D012

TROUBL BELL CIRCUIT FRONT LOBBY 12:33P 050206 B03
7770 FireTap Translation = “1234 18 E320 00 C000” System Bell 03

ALARM:Sup.L(DUCTP) Duct Det L1D075 Address 75 Z033 10:25A 072109 1D075
7770 FireTap Translation = “1234 18 E116 00 C459”

ACTIVE TRACK SUPERV MM Supv L1M100 Address 100 Z050 01:53P 072109 1M100
7770 FireTap Translation = “1234 18 E200 00 C164”

CLR ACTTRACK SUPERV MM Supv L1M100 Address 100 Z050 01:53P 072109 1M100
7770 FireTap Translation = “1234 18 R200 00 C164”

8.1.7 Examples of events and automation messages

The following examples were made using the configuration listed next:

- NFS-320 Revision 012.000.001B / 012.001.005A
- NBG-12LX Pull Station,
- FMM-1 Monitor Module,
- FMM-1 Monitor Module,
- FST-851 Heat Detector,
- FSP-851 Smoke Detector,
- FSD-751PL Duct Smoke Detector Innovair.

The 7770/7788F subscriber ID#9996 was interfaced to a 7705 (Multinet)

8.1.7.1 Duct smoke on Loop1, detector 75

Based on the table 8.1.5, Loop1, detector 75 (L1D075) will translate to zone 459.
The event is followed by a reset on the panel, that generates the E305 event.

FACP LCD

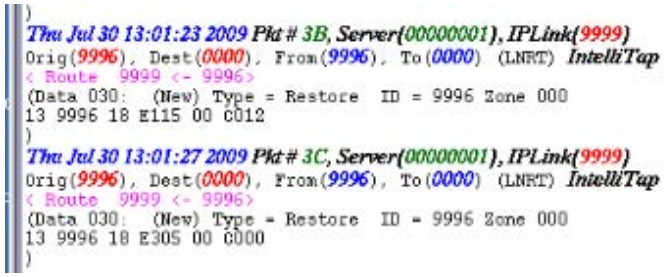
Multinet IPctrl

Automation results

8.1.7.2 Pull Station Loop1 Module 12

Based on the table 8.1.5, Loop1, module 12 (L1M012) will translate to zone 12.
The event is followed by a reset on the panel, that generates the E305 event.
FACP LCD

Multinet IPctrl

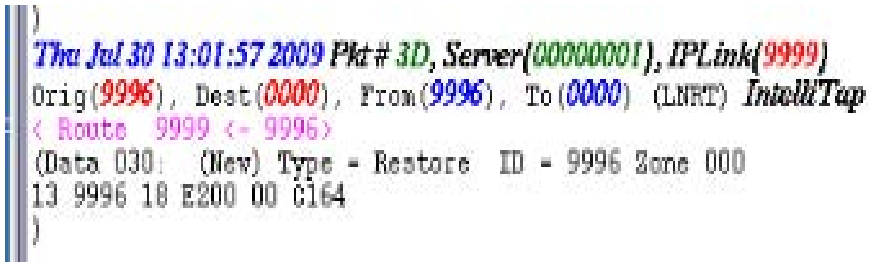


Automation results

8.1.7.3 Monitor Module: Loop1 Module 100 - tamper

Based on the table 8.1.5, Loop1, module 100 (L1M100) will translate to zone 164.
In this case, because it is programmed as a tamper, there is no restoral.
FACP LCD

Multinet IPctrl

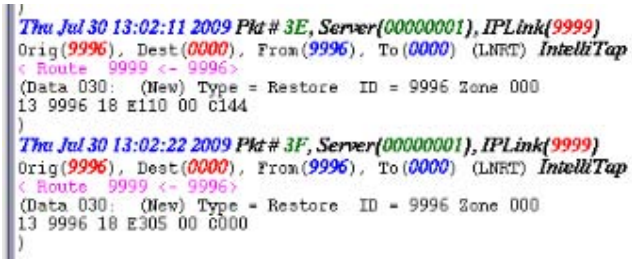


Automation results

8.1.7.4 Monitor Module Loop1 Module 80 - fire Alarm

Based on the table 8.1.5, Loop1, module 80 (L1M080) will translate to zone 144.
The event is followed by a reset on the panel, that generates the E305 event.
FACP LCD

Multinet IPctrl



Automation results

8.1.7.5 Smoke Detector Loop1 Detctor 10

Based on the table 8.1.5, Loop1, detector 10 (L1D010) will translate to zone 330.
The event is followed by a reset on the panel, that generates the E305 event.
FACP LCD

Multinet IPctrl

Automation results

8.1.7.6 Heat Detector: Loop1 detector 60

Based on the table 8.1.5, Loop1, detctor 60 (L1D060) will translate to zone 380.
The event is followed by a reset on the panel, that generates the E305 event.

FACP LCD

Multinet IPctrl

Automation results

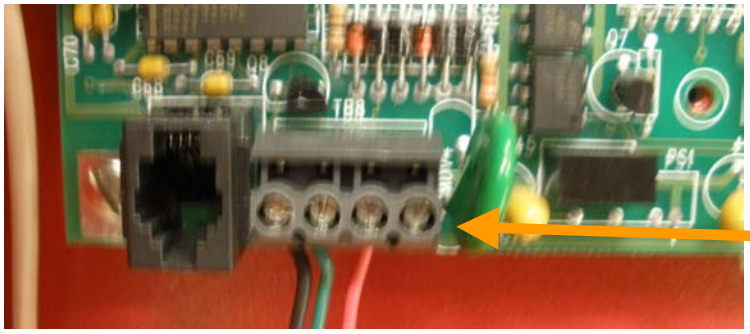
8.2 GAMEWELL Identiflex IF600 SERIES

Models IF610, IF632, IF654, and the IF658.

8.2.1 Fire Panel connection

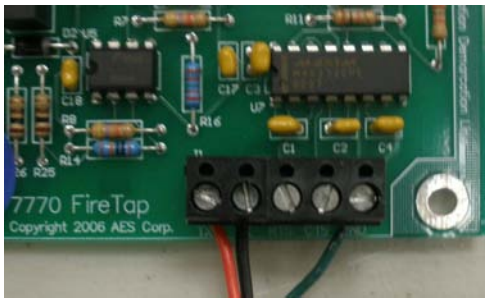
IF600 Series Isolated RS-232 Port.

The AES 7770 FireTapII attaches to the Gamewell's Isolated RS-232 Serial Port. The Isolated RS_232 Port is on the Bus Driver Module. Its available in two forms, either an RJ-22 Cable (**J5**), or a Terminal Block **TB8**. The simplest, and cheapest is **TB8. TB8** is in the lower left of the Bus Driver Module. It has to its right a RJ-22 Phone Handset Connector (**J5**). **TB8** has four terminals, and are labeled from left to right **'X', 'C', 'R', 'G'.** The Isolated RS-232 Port's Baud rate is **2400** Baud by default. This is set with **S1** dip switch. **S1** switch, **S7** is open, and **S8** is closed for **2400** Baud.



Three wires are attached between **TB8** on the Gamewell FACP, and **J1** on the AES 7770 FireTap. **TB8's** '**X**' terminal is wired to the 7770 FireTaps '**Rx'** terminal. **TB8's** '**C**' Terminal is wired to the 7770's '**Gnd'** Terminal, Lastly **TB8's** '**R**' Terminal is attached to 7770's '**Tx'** Terminal.

7770 JP1		Gamewell TB8
Tx	→	'**R**' Terminal
Rx	→	'**X**' Terminal
Gnd	→	'**C**' Terminal



8.2.2 Connection supervision

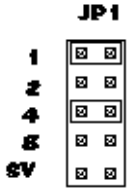
Interface Supervision is by the panel only. The 7770 does not supervise the FACP. That means that if the 7770 is disconnected from the panel, the 7770 will not issue an alarm. However, the panel (when programmed to supervise the printer module where the 7770 connects) will issue a trouble via one of its trouble relays.

8.2.3 Fire Panel programming

Program the FACP for Remote Annunciation. This allows supervision via COM 2 (J2) on the 30952 board in the FACP. Default Baud Rate is 2400.

8.2.4 7770 FireTap JP1, FACP Selection Jumpers

Gamewell IdentiFlex Protocol is selected by placing shorting bar jumpers onto terminals **1**, and **4** of **JP1** on the 7770. This also selects **2400** Baud for the **Gamewell** Protocol. Note: There is no need for the Supervision jumper on the 7770 **JP1 SV** terminal, as Supervision is part of the Gamewell Protocol.



8.2.5 Gamewell to Ademco CID Translations

Gamewell uses *Circuits* (**CKT 1-128**), and *Devices* (**DEV 1-126**). Circuits numbers up to **99** are supported, and are mapped into Ademco CID Format's Group Code. Circuits greater than **99** are not supported, they will be capped at **99**, with the Point field set to **999** to indicate an error. Devices are mapped into the Point ID Field if **Circuit** is **99** or less.

8.2.6 Examples of CID translations

Status:ALARM 1st of 1 12/07/08 11:32
Fire Alarm in Ckt:1 Dev:1 Igr:25
Alarm Pull Station
3rd. Floor
7770 FireTap Translation = "1234 18 E110 01 C001" Alarm circuit 1 device 1

Status:NORMAL 12/07/08 11:35
I/O Restored, Ckt:131 Dev:20
Fire Pull Station
7770 FireTap Translation = "1234 18 R300 99 C999" Error Circuit greater than 99

8.2.7 Examples of events and automation messages

The following examples were made using the configuration listed next:

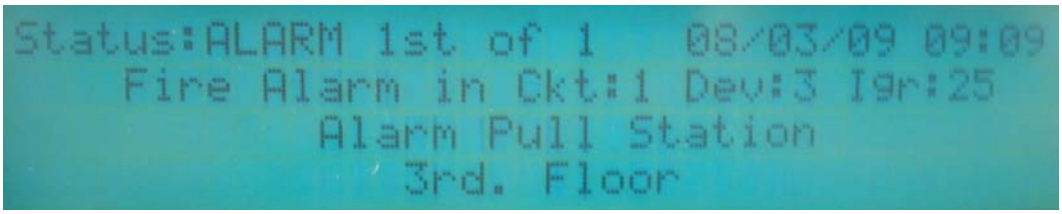
- Tested with Gamewell Identiflex 600 IF610 Revision F12 Firmware
- MS-95 Pull Station,
- CZI-95 Conventional Interface,
- RCE-95 Relay Control Element,
- Series 60A Photo Smoke Detector,
- XP-95A Heat Detector,
- XP-95C Ion Smoke Detector.

The 7770/7788F subscriber ID#9996 was interfaced to a 7705 (Multinet)

8.2.7.1 Pull Station Circuit 1 Device 3

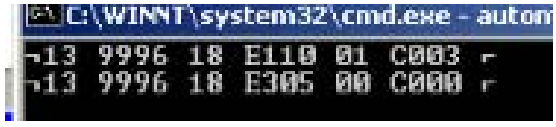
Circuit 1, device 3 will translate to Group 01, Zone 3.
The event is followed by a reset on the panel, that generates the E305 event.

FACP LCD



Multinet IPctrl

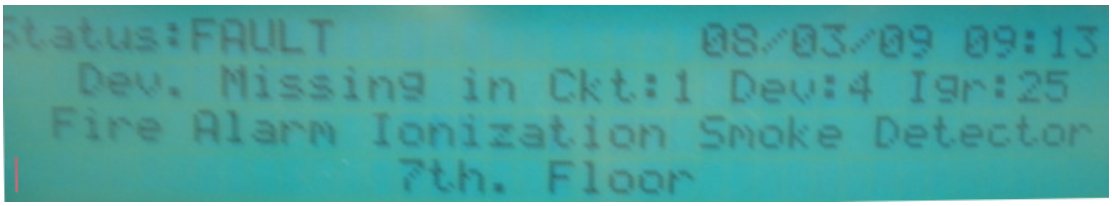
Automation results



8.2.7.2 Smoke Detector Circuit 1 Device 4

Circuit 1, device 4 will translate to Group 01, Zone 4.
Note: in order to generate the alarm this detector requires the actual trigger (aka smoke), so we forced a trouble condition for the generation of the event. Because of that, the event code is E300 (trouble) instead of an E113 (smoke).

FACP LCD



Multinet IPctrl

Automation results

8.3 FIRE-LITE MS-9200

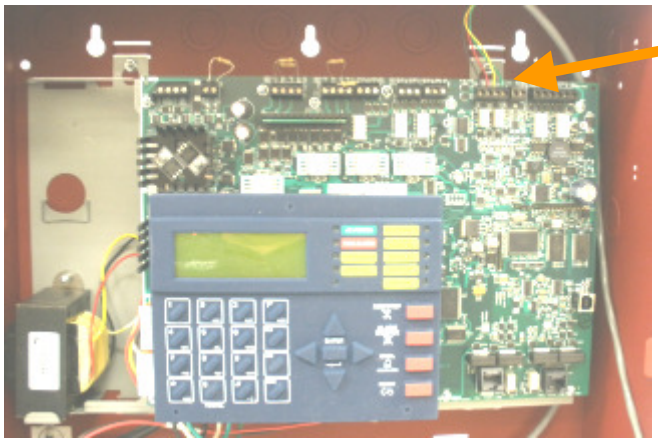
Model 9200UD.

8.3.1 Fire Panel connection

MS-9200UD Series PC/Printer EIA-232 Port.

The AES 7770 FireTap II attaches to the FireLite MS-9200UD EIA-232 Serial Port **TB8**. This Port is labeled on the Printed Circuit Board as EIA-485, however, on the the FACP door, it is named as PC/Printer EIA-232. Program the port for **9600** Baud, **7** Data Bits, Parity **E**ven, Stop Bits **1**.

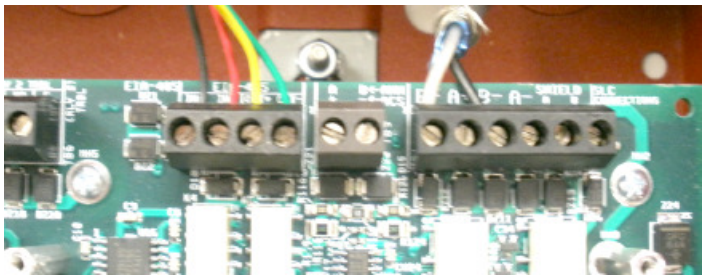
TB8 terminal: **1** = **Tx**, **2** = **Rx**, **3** = **DTR**, **4** = **Gnd**.

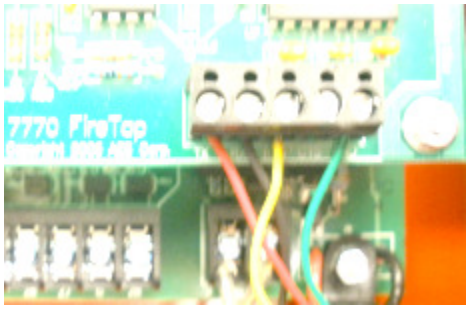


FACP TB8 connector

7770 JP1		MS-9200UD TB8
Rx	→	**Terminal 1**
Tx	→	**Terminal 2**
RTS	→	**Terminal 3**
Gnd	→	**Terminal 4**

Four wires are attached between **TB8** on the MS-9200UD FACP, and **J1** on the AES 7770 FireTap. **TB8's** Terminal **1** (**Tx**) is wired to the 7770 FireTaps '**Rx'** Terminal. **TB8's** Terminal **2** (**Rx**) is wired to the 7770's '**Tx'** Terminal, **TB8's** Terminal **3** (**DTR**) is wired to 7770's '**RTS'** Terminal, Lastly **TB8's** Terminal **4** (**Gnd**) is attached to 7770's '**Gnd'** Terminal.





8.3.2 Connection supervision

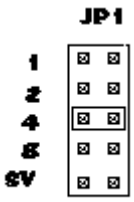
Interface Supervision is by the panel only. The 7770 does not supervise the FACP. That means that if the 7770 is disconnected from the panel, the 7770 will not issue an alarm. However, the panel (when programmed to supervise the interface where the 7770 connects, and when the DTR line is connected) will issue a trouble via one of its trouble relays.

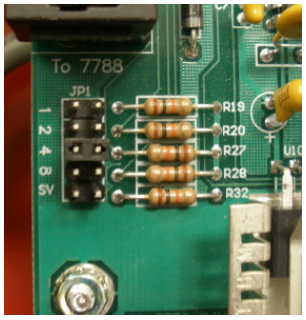
8.3.3 Fire Panel programming

Enter programming mode
Press 3 while viewing (3= Printer/PC)
The following options will be provided:
1 = Printer NO SU NO
2 = Priter SU YES
3 = PC NO
Select option #2
Then, set the baudrate to 9600
Exit

8.3.4 7770 FireTap JP1, FACP Selection Jumpers

FireLite 9200UD Protocol is selected by placing shorting bars onto terminals **4** on **JP1**. This also selects **9600** Baud, **7** Data, **E**ven Parity, **1** Stop Bit. Note: There is no need for the Supervision jumper on the **JP1 SV** terminal, as only the FireLite can Supervise its Serial Port Via its DTR Pin.





8.3.5 Firelite to Ademco CID Translations

FireLite 9200UD supports **99** Detectors, and **99** Monitor Control Modules. **Detectors** are mapped into **Ademco CID** Group Field as '**01**',and its number placed into Point Field. Monitor Control **Modules** are mapped to a '**02**' in the Group Field, and its number mapped into Point Field. System Messages like AC Fail, or Low Battery map into the group field with a '**00**'.

8.3.6 Examples of CID translations

ALARM: HEAT DETECT 2ND FLOOR BATH HEAT Z000 03:13A 010100 1D002
7770 FireTap Translation = "1234 18 E110 01 C002" **Alarm, Detector 2 1D002**

ALARM: PULL STATION REAR 2ND FLR EXIT *Z000 03:12A 010100 1M001*
7770 FireTap Translation = "1234 18 E115 02 C001" **Alarm Module 1 1M001**

CLEARa PULL STATION REAR 2ND FLR EXIT *Z000 03:12A 010100 1M001*
7770 FireTap Translation = "1234 18 R115 02 C001" **Restoral module 1 1M001**

CLEARt IN SYSTEM NO BATTERY ***03:15A 010100***
7770 FireTap Translation = "1234 18 R302 00 C000" System Low Battery Restoral

8.3.7 Examples of events and automation messages

The following examples were made using the configuration listed next:

- Tested with Firelite 9200-UD, Firmware revision 04.00 B6
- BG-12LX Pull Station,
- H355 Fixed Heat Detector,
- SD355 Smoke Detector.

The 7770/7788F subscriber ID#9996 was interfaced to a 7705 (Multinet)

8.3.7.1 Pull Station Loop1 Module 01

Loop 1, module 1 will translate to Group 02, Zone 1.
The event is followed by a reset on the panel, that generates the E305 event, followed by the restoral.
FACP LCD

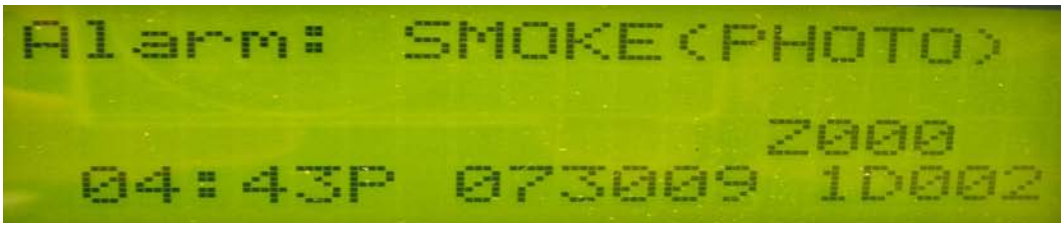
Multinet IPctrl
(the sequence below does not show the E115)

Automation results

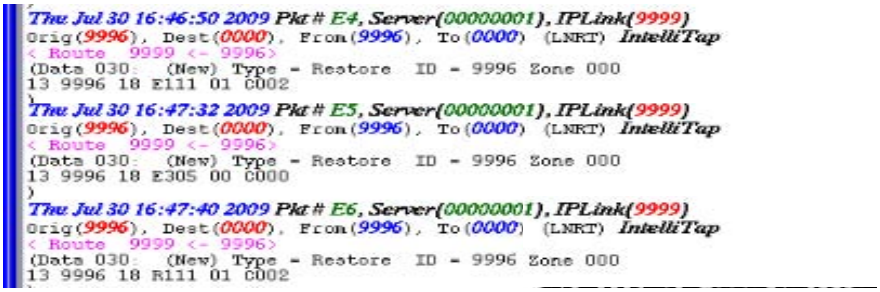
8.3.7.2 Smoke Detector Loop1 Detector 02

Loop 1, detector 2 will translate to Group 01, Zone 2.
The event is followed by a reset on the panel, that generates the E305 event, followed by the restoral.

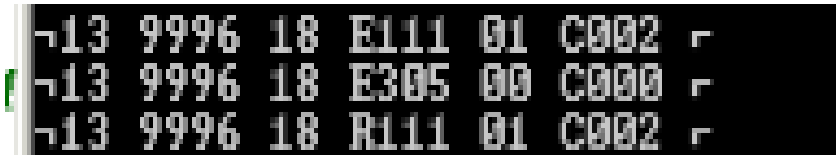
FACP LCD



Multinet IPctrl

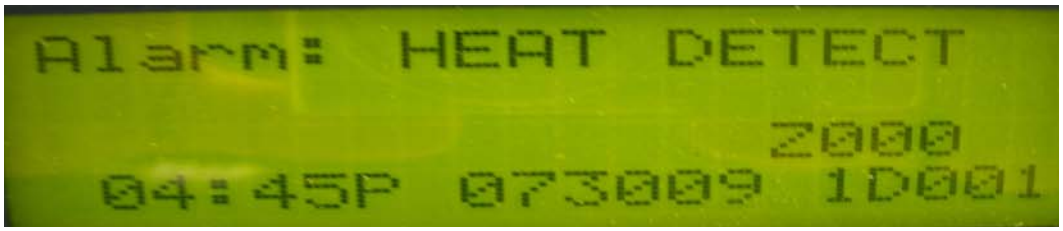


Automation results



8.3.7.3 Heat Detector Loop1 Detector 01

Loop 1, detector 1 will translate to Group 01, Zone 1.
The event is followed by a reset on the panel, that generates the E305 event, followed by the restoral.
FACP LCD



Multinet IPctrl

Automation results

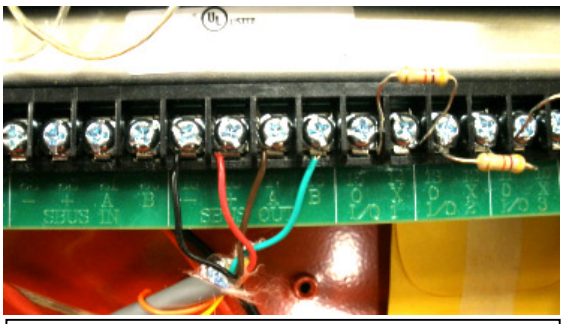
8.4 SILENT KNIGHT using the 5824 Serial Port module

Silent Knight models 5700, 5800, 5820XL.
Farenheit models IFP-50, IFP-100, IFP-1000, and IFP-2000.

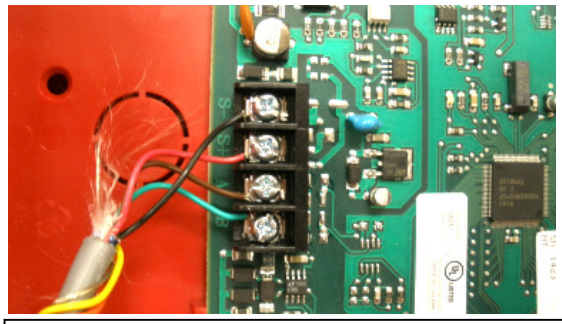
8.4.1 Fire Panel connection

5824 RS-232 Port.

The AES 7770 FireTap attaches to a Silent Knight 5824 Module Serial Port. The connection between the FACP and the 5824 is done using a 4 wire cable. For detailed instructions, consult the documentation of the 5824 module.



FACP-5824 connection at the FACP side

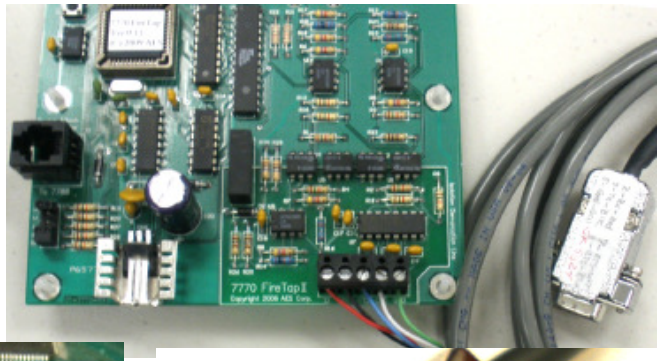


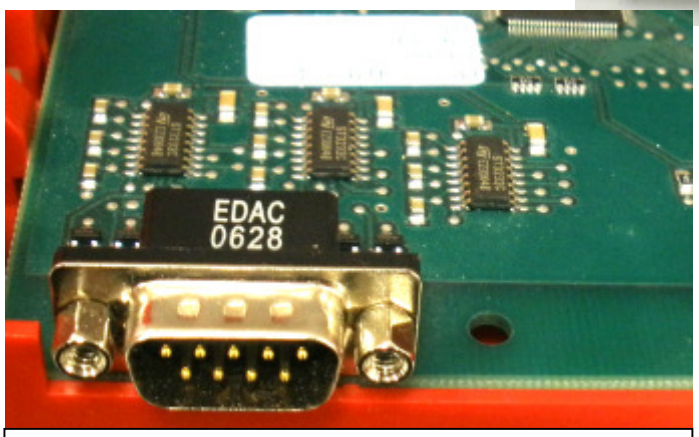
FACP-5824 connection at the 5824 side

Once the 5824 is installed, the 7770 interfaces to it using a DB9 terminated cable. The DB9 on the 5824 is a male connector (pins), so the cable has to be built using a DB9 female. Connect the DB9 female terminated cable to the 5824 DB9 connector (male).
Note: Supported Baud Rate is 9600 N81

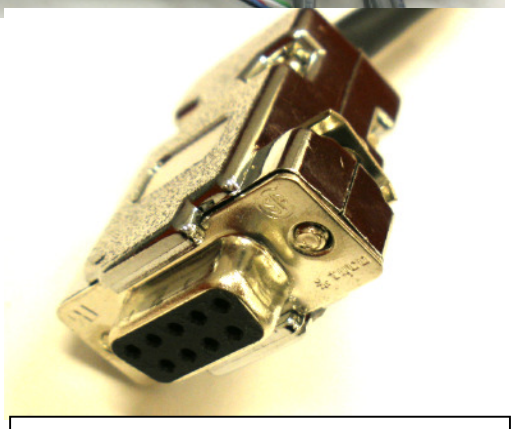
Five wires are attached between the DB9 female and the AES 7770 FireTap.

7770 JP1		DB9f
Tx	→	Pin 2 - Rx
Rx	→	Pin 3 - Tx
Gnd	→	Pin 5 - Gnd
CTS	→	Pin 7 - RTS
RTS	→	Pin 8 - CTS





5824 DB9 Male connector



Firetap DB9 female terminated cable

8.4.2 Connection supervision

The connection between the 7770 and the FACP is supervised by the 7770. That means that if the 7770 is disconnected from the FACP, the 7770 will issue an alarm message. The FACP also supervises the connection, and it will also trip the trouble relay. The 7770 uses the CTS line to supervise the connection.

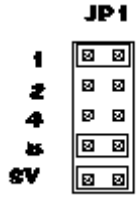
8.4.3 Fire Panel programming

Add 5824 module.

- From Main Menu. Select [7] (Program menu).
- Select [1] for Module Select
- Select [1] for Edit Module
- Select 5824 from the list.
- Monitor printer should be set to YES.
- Output port should be set to serial.
- Go to next screen, 9600,8,N1
- From the Main Menu, select 5 Printer Options
- Then select 1: Event Logging On (turn on Event Logging.)

8.4.4 7770 FireTap JP1, FACP Selection Jumpers

Silent Knight Protocol is selected by placing shorting bars jumpers onto terminals **1**, and **8** on **JP1**. This also selects 9600 Baud for the Silent Knight Protocol. Place Supervision jumper on the **JP1 SV** to Supervise the Silent Knight to 7770 FireTap cable.



8.4.5 Silent Knight to Ademco CID Translations

Silent Knight Modules are Mapped in to Ademco CID Group field, Points go into CID Point field. System Events use Group Code 00.

8.4.6 Examples of CID translations

10/10/2008 13:07 Event:
Manual Pull Alarm Zone 001 [M33:P001] MODULE_33 POINT_1
7770 FireTap Translation = "1234 18 E115 33 C001" Pull Station Alarm

10/10/2008 13:09 Event:
ManPull Alrm Restore Zone 001 [M33:P001] MODULE_33 Point_1
7770 FireTap Translation = "1234 18 R115 33 C001" Pull Station Restoral

10/10/2008 14:52 Event:
Photo Det Alarm Zone 001 [M33:P002] MODULE_33 POINT_2
7770 FireTap Translation = "1234 18 E111 33 C002" Smoke

10/10/2008 15:16 Event:
Photo Det Trouble Zone 001 [M33:P002] MODULE_33 POINT_2
7770 FireTap Translation = "1234 18 E380 33 C002" Sensor Trouble

10/10/2008 15:17 Event:
System Reset
7770 FireTap Translation = "1234 18 E305 00 C000" System Reset

8.4.7 Examples of events and automation messages

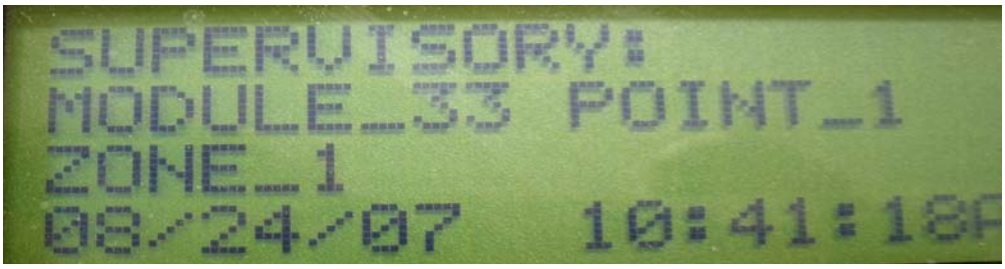
The following examples were made using the configuration listed next:

- Tested with IFP-1000 Revision V9.09
- 5824 Revision V1.0
- PS-DA Pull Station,
- SD-505-APS Smoke Detector Photo.

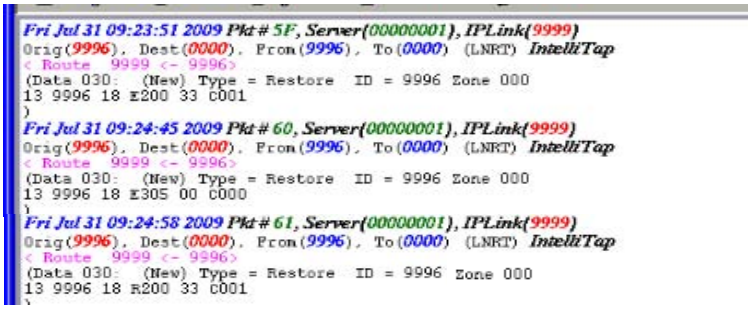
The 7770/7788F subscriber ID#9996 was interfaced to a 7705 (Multinet)

8.4.7.1 Monitor Module 33 Device 01

Module 33 device 1 will translate to Group 33, Zone 1.
The event is followed by a reset on the panel, that generates the E305 event, followed by the restoral.
FACP LCD



Multinet IPctrl



Automation results

8.4.7.2 Smoke Detector Module33 Device 02

Module 33 device 2 will translate to Group 33, Zone 2.
The event and restorals are followed by a reset on the panel, that generates the E305 event..

FACP LCD

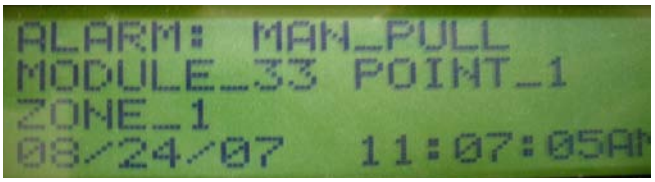
Multinet IPctrl

Automation results

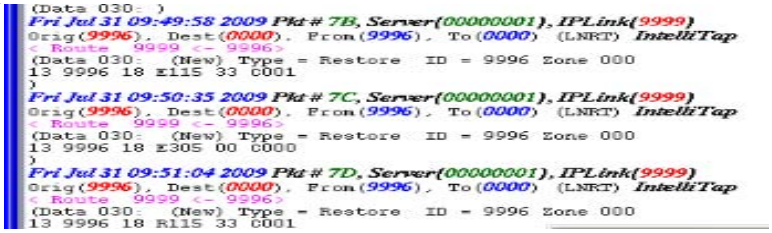
8.4.7.3 Pull Station Module33 Dev 01

Module 33 device 1 will translate to Group 33, Zone 1.
The event is followed by a reset on the panel, that generates the E305 event, followed by the restoral.

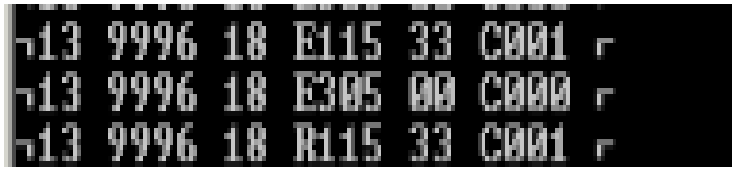
FACP LCD



Multinet IPctrl



Automation results



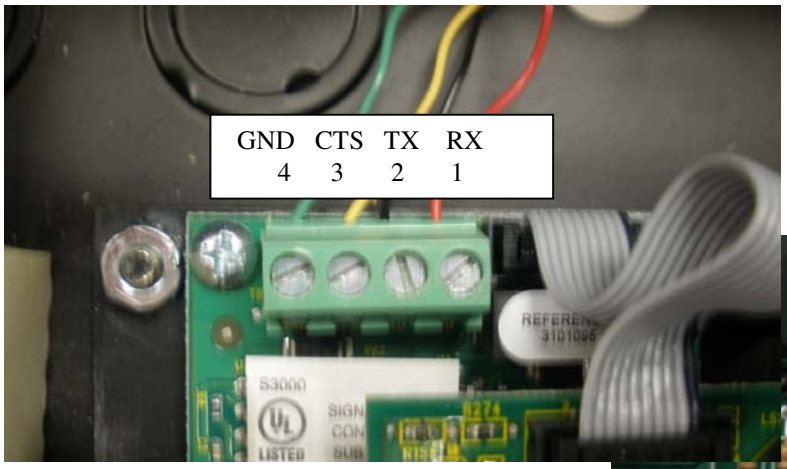
8.5 GE Est-i

Models iO64 and iO500 with SA-232 optional RS-232 Card.

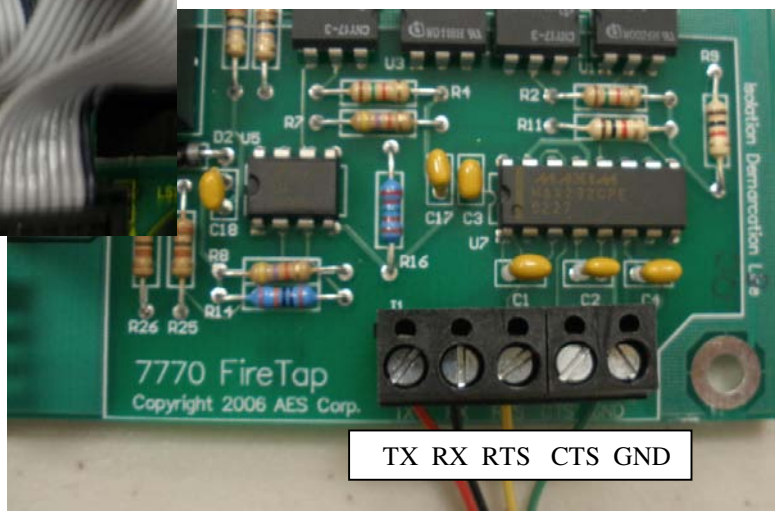
8.5.1 Fire Panel connection

SA-232 Ineterface card

The AES 7770 FireTap attaches to the SA-232 Interface Card. The SA-232 is an optional card used for connecting a printer to the panel. It's located in the upper left side of the panel, and connects to J3 on the Main Circuit board. The 7770 connects to the SA-232 via 4 wires between the terminal block TB? And the 7770 connector J1.



7770 JP1		SA-232 TB?
TX	→	Terminal 1
RX	→	Terminal 2
RTS	→	Terminal 3
GND	→	Terminal 4



The communication settings cannot be changed, and when the jumpers are set for the FACP, they are automatically set on the 7770 to 9600 Baud, 8 Data, No Parity, 1 Stop Bit.

8.5.2 Connection supervision

Interface Supervision is by the panel only. The 7770 does not supervise the FACP. That means that if the 7770 is disconnected from the panel, the 7770 will not issue an alarm. When the panel is programmed to supervise the printer and when the wire from 7770 RTS is connected to the PIN#3 (CTS), upon failure, the FACP will issue a trouble via one of its trouble relays. The connection is considered compromised when it fails for more than 30 seconds, and the EST will signal a printer fault. When the connection is restored the 7770 Firetap will send the EST's printer restoral signal (R350).

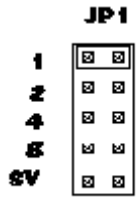
8.5.3 Fire Panel programming

Program the EST FACP for Supervision, following the steps below:

- Press the panel's Menu Button
- choose Program
- choose Advanced Program.
- enter your level two Password
- choose Panel Configuration,
- choose Printer
- choose Type
- select Supervised
- then Save.

NOTE: Event Notification to Printer is on by Default.

8.5.4 7770 FireTap JP1, FACP Selection Jumpers



GE EST iO64/iO500 protocol is selected by placing shorting bars jumpers onto terminal **1** on **JP1** of the 7770.

8.5.5 EST to Ademco CID Translations

EST loops 1 and 2 (L:1 and L:2) are Mapped in to Ademco CID Group field, Points go into CID Point field. System Events use Group Code 00.

8.5.6 Examples of CID translations

MON ACT | 12:44:20 04/22/2009 L:1 D:003
Shipping Dock Door
7770 FireTap Translation = "1234 18 E110 01 C003"

MON RST | 12:44:24 04/22/2009 L:1 D:003
Shipping Dock Door
7770 FireTap Translation = "1234 18 R110 01 C003"

ALRM ACT | 12:43:11 04/22/2009 L:1 D:004
Kitchen Heat Detector
7770 FireTap Translation = "1234 18 E114 01 C004"

ALRM RST | 12:43:11 04/22/2009 L:1 D:004
Kitchen Heat Detector
7770 FireTap Translation = "1234 18 R114 01 C004"

TRBL ACT | 13:04:41 04/25/2009 E:061
Panel NAC 04
7770 FireTap Translation = "1234 18 E327 00 C000"

PULL ACT | 11:32:42 04/22/2009 L:1 D:006
Main Entrance
7770 FireTap Translation = "1234 18 E115 01 C006"

SMK ACT | 11:46:41 04/22/2009 L:1 D:001
Main Lobby Smoke Detector
7770 FireTap Translation = "1234 18 E111 01 C001"

8.5.7 Examples of events and automation messages

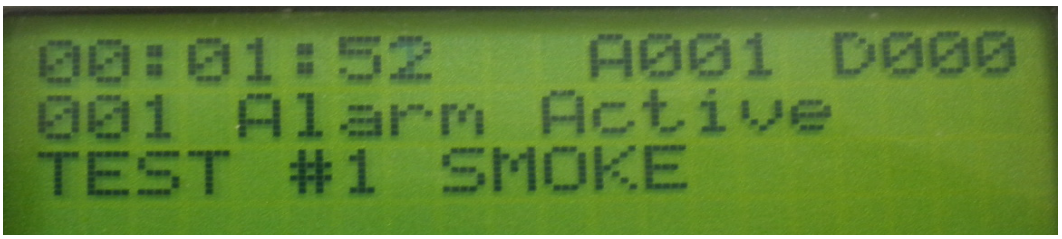
The following examples were made using the configuration listed next:

- iO64 Firmware revision 01.20.00
- SA-232 optional RS-232 Card
- SIGA-270 Pullstation
- SIGA-PS Photo Smoke Detector
- SIGA-HFS Fixed Temperature Heat Detector

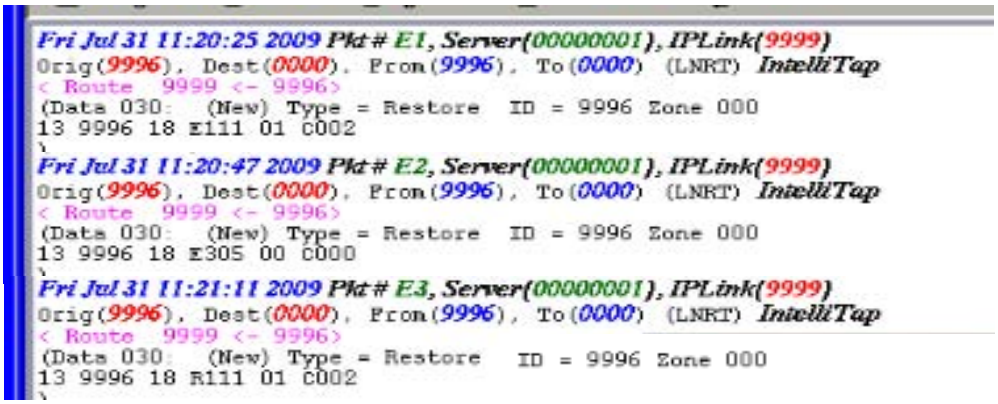
The 7770/7788F subscriber ID#9996 was interfaced to a 7705 (Multinet)

8.5.7.1 Smoke detector on Loop1 as Device 02

Loop1, device 02 will translate to Group 01, Zone 02.
The event is followed by a reset on the panel, that generates the E305 event, followed by the restoral.
FACP LCD



Multinet IPctrl



Automation results

8.5.7.2 Heat Detector Loop1 Device 01

Loop1, device 01 will translate to Group 01, Zone 01.

FACP LCD

Multinet IPctrl

```
)
Fri Jul 31 11:22:26 2009 Pkt # E5, Server(00000001), IPLink(9999)
Orig(9996), Dest(0000), From(9996), To(0000) (LNRT) IntelliTap
< Route  9999 <- 9996>
(Data 030:  (New) Type = Restore  ID = 9996 Zone 000
13 9996 18 E380 01 C001
)
Fri Jul 31 11:22:51 2009 Pkt # E6, Server(00000001), IPLink(9999)
Orig(9996), Dest(0000), From(9996), To(0000) (LNRT) IntelliTap
< Route  9999 <- 9996>
(Data 030:  (New) Type = Restore  ID = 9996 Zone 000
13 9996 18 R380 01 C001
)
```

Automation results

8.5.7.3 Pull Station Loop1 Device 03

Loop1, device 03 will translate to Group 01, Zone 03.

The event is followed by a reset on the panel, that generates the E305 event, followed by the restoral.

FACP LCD

Multinet IPctrl

```
)
Fri Jul 31 11:23:06 2009 Pkt # E7, Server(00000001), IPLink(9999)
Orig(9996), Dest(0000), From(9996), To(0000) (LNRT) IntelliTap
< Route  9999 <- 9996>
(Data 030:  (New) Type = Restore  ID = 9996 Zone 000
13 9996 18 E115 01 C003
)
Fri Jul 31 11:23:23 2009 Pkt # E8, Server(00000001), IPLink(9999)
Orig(9996), Dest(0000), From(9996), To(0000) (LNRT) IntelliTap
< Route  9999 <- 9996>
(Data 030:  (New) Type = Restore  ID = 9996 Zone 000
13 9996 18 E305 00 C000
)
Fri Jul 31 11:23:54 2009 Pkt # E9, Server(00000001), IPLink(9999)
Orig(9996), Dest(0000), From(9996), To(0000) (LNRT) IntelliTap
< Route  9999 <- 9996>
(Data 030:  (New) Type = Restore  ID = 9996 Zone 000
13 9996 18 R115 01 C003
)
```

Automation results

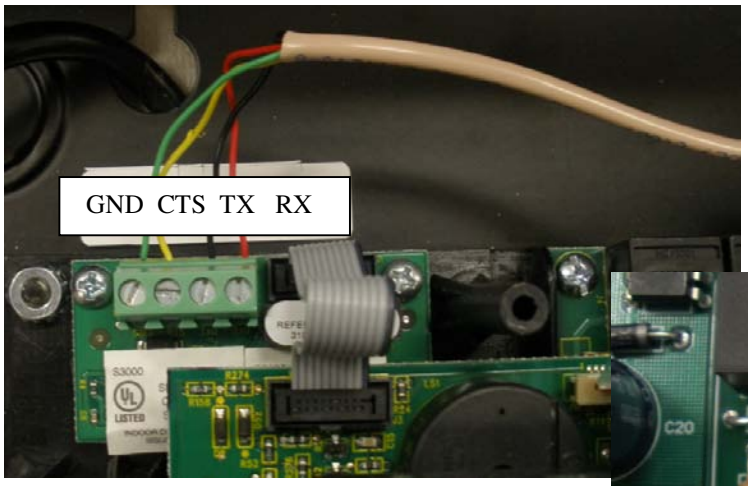
8.6 GE vigilant

Models SV1 and SV2 with SA-232 optional RS-232 Card.

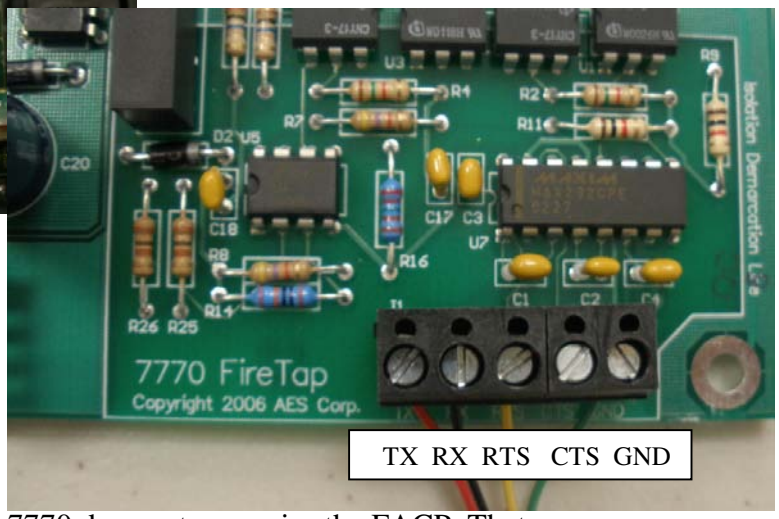
8.6.1 Fire Panel connection

SA-232 Ineterface card

The AES 7770 FireTap attaches to the SA-232 Interface Card. The SA-232 is an optional card used for connecting a printer to the panel. It's located in the upper left side of the panel, and connects to J3 on the Main Circuit board. The 7770 connects to the SA-232 via 4 wires between the terminal block TB? And the 7770 connector J1.



7770 JP1		SA-232 TB?
TX	→	RX
RX	→	TX
RTS	→	CTS
GND	→	GND



The communication settings cannot be changed, and when the jumpers are set for the FACP, they are automatically set on the 7770 to 9600 Baud, 8 Data, No Parity, 1 Stop Bit.

8.6.2 Connection supervision

Interface Supervision is by the panel only. The 7770 does not supervise the FACP. That means that if the 7770 is disconnected from the panel, the 7770 will not issue an alarm. When the panel is programmed to supervise the printer and when the wire from 7770 RTS is connected to the PIN#3 (CTS), upon failure, the FACP will issue a trouble via one of its trouble relays. The connection is considered compromised when it fails for more than 30 seconds, and the EST will signal a printer fault. When the connection is restored the 7770 Firetap will send the Vigilants's printer restoral signal (R350).

8.6.3 Fire Panel programming

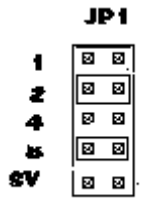
Program the Vigilant FACP for Supervision, following the steps below:

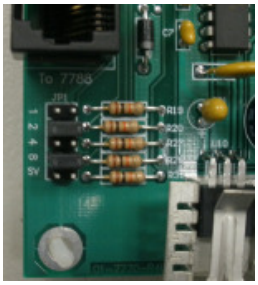
- Press the panel's Menu Button
- choose Program
- choose Advanced Program.
- enter your level two Password
- choose Panel Configuration,
- choose Printer
- choose Type
- select Supervised

NOTE: Event Notification to Printer is on by Default.

- then Save.

8.6.4 7770 FireTap JP1, FACP Selection Jumpers





GE Vigilant protocol is selected by placing shorting bars jumpers onto terminal **2 and 8** on **JP1** of the 7770.

8.6.5 GE Vigilant to Ademco CID Translations

Vigilant loops 1 and 2 (L:1 and L:2) are mapped in to Ademco CID Group field, Points go into CID Point field. System Events use Group Code 00.

8.6.6 Examples of CID translations

MON ACT | 12:44:20 04/22/2009 L:2 D:249
Shipping Dock Door
7770 FireTap Translation = "1234 18 E110 02 C249"

MON RST | 12:44:24 04/22/2009 L:2 D:249
Shipping Dock Door
7770 FireTap Translation = "1234 18 R110 02 C249"

SUPV ACT | 12:44:01 04/22/2009 L:2 D:250
Tamper Switch Mech Room
7770 FireTap Translation = "1234 18 E200 02 C250"

ALRM ACT | 12:43:11 04/22/2009 L:1 D:127
Kitchen Heat Detector
7770 FireTap Translation = "1234 18 E114 01 C127"

ALRM RST | 12:43:11 04/22/2009 L:1 D:127
Kitchen Heat Detector
7770 FireTap Translation = "1234 18 R114 01 C127"

TRBL ACT | 13:04:41 04/25/2009 E:061
Panel NAC 04
7770 FierTap Translation = "1234 18 E327 00 C000"

PULL ACT | 11:32:42 04/22/2009 L:2 D:126
Main Entrance
7770 FireTap Translation = "1234 18 E115 02 C126"

SMK ACT | 11:46:41 04/22/2009 L:1 D:001
Main Lobby Smoke Detector
7770 FireTap Translation = "1234 18 E111 01 C001"

8.6.7 Examples of events and automation messages

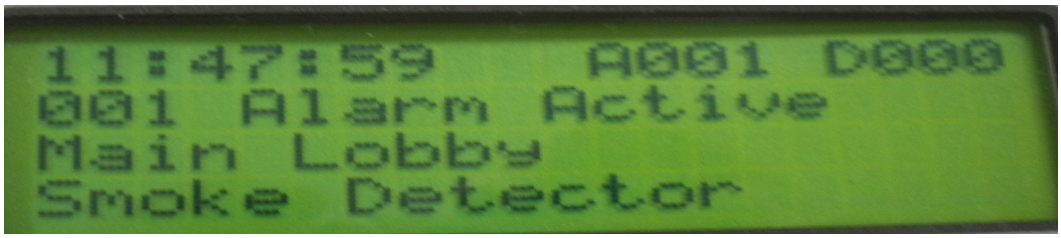
The following examples were made using the configuration listed next:

- Tested VS2, with Revision 01.20.00 Firmware.
- SA-232 optional RS-232 Card
- GSA-M278 Pull Station
- GSA-CR Control Relay Module
- Genesis Strobe
- GSA-CT1 Single Input Module
- GSA-CC1 Single Input Module
- GSA-CT2 Dual Input Module
- V-PS Photo Smoke Detector
- B4U Analog Standard Detector
- V-SLC Loop Expander Card

The 7770/7788F subscriber ID#9996 was interfaced to a 7705 (Multinet)

8.6.7.1 Smoke Detector Loop1 Dev 01

Loop1, device 01 will translate to Group 01, Zone 02.
The event is followed by a reset on the panel, that generates the E305 event, followed by the restoral.
FACP LCD



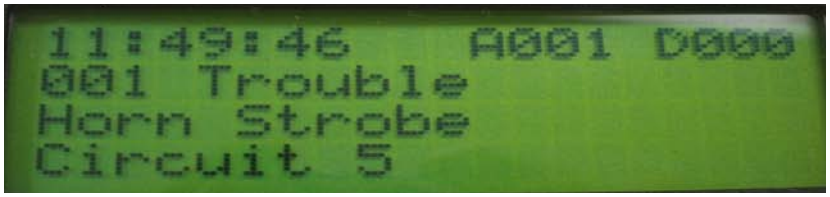
Multinet IPctrl

Automation results

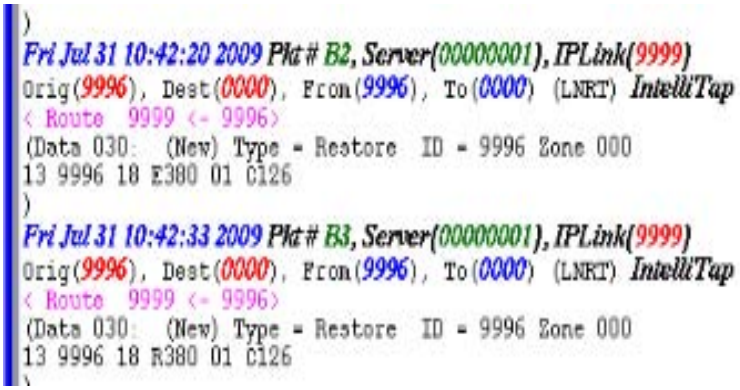
8.6.7.2 Horn Strobe Trouble Dev126

Loop1, device 126 will translate to Group 01, Zone 126.

FACP LCD



Multinet IPctrl



Automation results

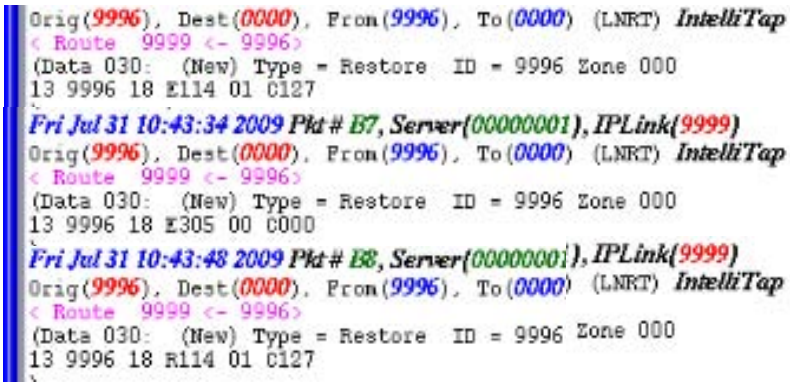
8.6.7.3 Heat Detector Loop1 Dev 127

Loop1, device 127 will translate to Group 01, Zone 127.

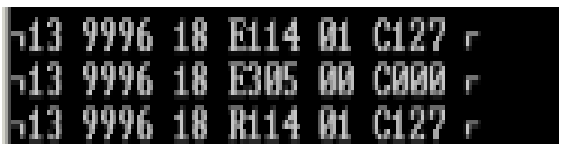
The event is followed by a reset on the panel, that generates the E305 event, followed by the restoral.

FACP LCD

Multinet IPctrl



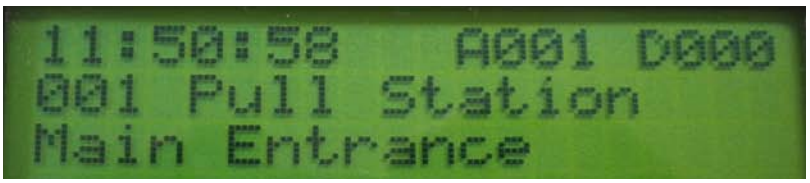
Automation results



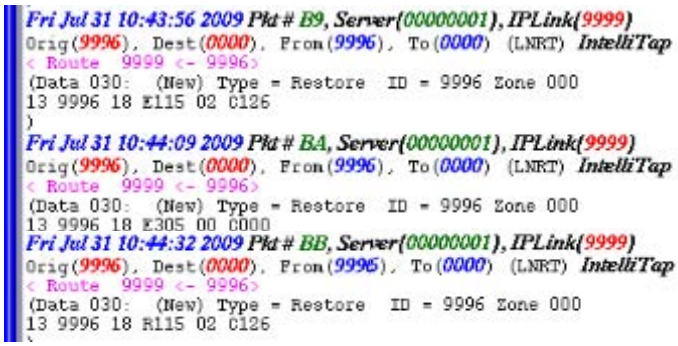
8.6.7.4 Pull Station Loop1 Dev 126

Loop1, device 126 will translate to Group 01, Zone 126.
The event is followed by a reset on the panel, that generates the E305 event, followed by the restoral

FACP LCD



Multinet IPctrl

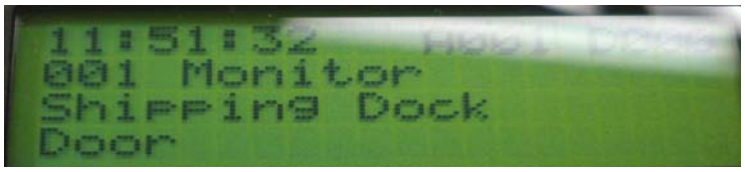


Automation results

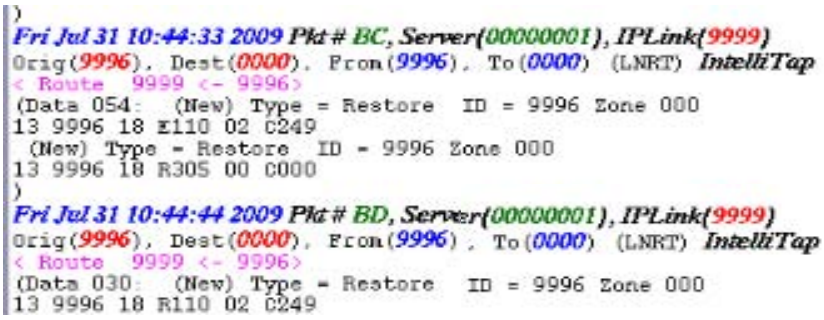
8.6.7.5 Monitor Module Loop1 Dev 249

Loop1, device 249 will translate to Group 01, Zone 249.
The event is followed by a reset on the panel, that generates the E305 event, followed by the restoral. . This panel issues an extra code, an R305. This code is also issued via the dialer.

FACP LCD



Multinet IPctrl

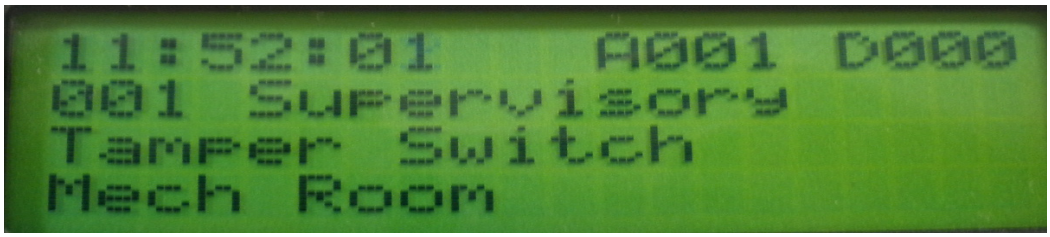


Automation results

8.6.7.6 Monitor Module Tamper Loop1 Dev 249

Loop1, device 249 will translate to Group 01, Zone 249.
The event is followed by a reset on the panel, that generates the E305 event, followed by the restoral. . This panel issues an extra code, an R305. This code is also issued via the dialer.

FACP LCD



Multinet IPctrl

```
)
Fri Jul 31 10:44:57 2009 Pkt # BE, Server(00000001), IPLink(9999)
Orig(9996), Dest(0000), From(9996), To(0000) (LNRT) IntelliTap
< Route  9999 <- 9996>
(Data 030:   (New) Type = Restore  ID = 9996 Zone 000
13 9996 18 E200 02 C250
)
Fri Jul 31 10:45:15 2009 Pkt # BF, Server(00000001), IPLink(9999)
Orig(9996), Dest(0000), From(9996), To(0000) (LNRT) IntelliTap
< Route  9999 <- 9996>
(Data 030:   (New) Type = Restore  ID = 9996 Zone 000
13 9996 18 E305 00 C000
)
Fri Jul 31 10:45:28 2009 Pkt # C0, Server(00000001), IPLink(9999)
Orig(9996), Dest(0000), From(9996), To(0000 (LNRT) IntelliTap
< Route  9999 <- 9996>
(Data 030:   (New) Type = Restore  ID = 9996 Zone 000
13 9996 18 R200 02 C250
)
Fri Jul 31 10:45:34 2009 Pkt # C1, Server(00000001), IPLink(9999)
Orig(9996), Dest(0000), From(9996), To(0000 (LNRT) IntelliTap
< Route  9999 <- 9996>
(Data 030:   (New) Type = Restore  ID = 9996 Zone 000
13 9996 18 R305 00 C000
)
```

Automation results

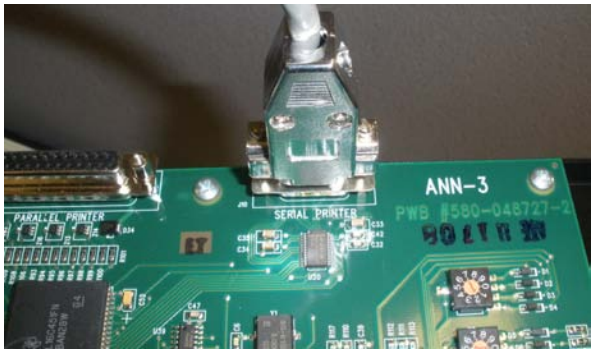
```
¬13 9996 18 E200 02 C250 ⌐
¬13 9996 18 E305 00 C000 ⌐
¬13 9996 18 R200 02 C250 ⌐
¬13 9996 18 R305 00 C000 ⌐
```

8.7 Siemens MXL

Model MXL

8.7.1 Fire Panel connection

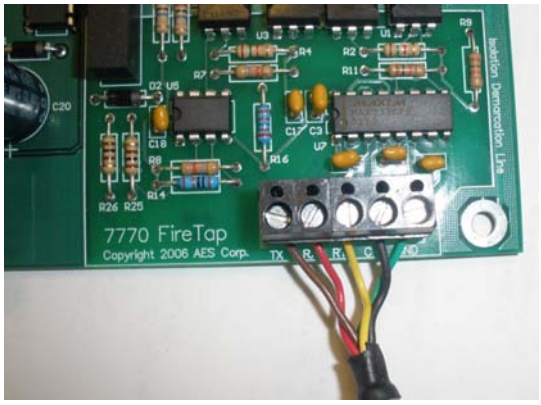
ANN-3, PIM-4 Serial Printer Port.



The AES 7770 FireTapII attaches to the Siemens Serial Printer Port. The Serial Printer Port is a DCE Female DB9 Connector . Note: Supported Baud Rate is 9600 N81, also Panel may have turned off Serial Printer Port if no Printer, or FireTap attached.

Hookup.

Five wires are attached between the Siemens Serial Printer Port and the AES 7770 FireTap.



7770 JP1		Serial Printer Port
Tx	→	Pin 2 - Rx
Rx	→	Pin 3 - Tx
Gnd	→	Pin 5 - Gnd
CTS	→	Pin 7 - RTS
RTS	→	Pin 8 – CTS
		Pin 4 – tied to Pin6
		Pin 6 – tied to Pin4

8.7.2 Connection supervision

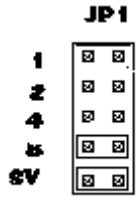
The connection between the 7770 and the FACP is supervised by the 7770. That means that if the 7770 is disconnected from the FACP, the 7770 will issue an alarm message. The FACP also supervises the connection, and it will also trip the trouble relay. The 7770 uses the CTS line to supervise the connection.

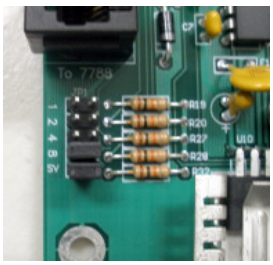
8.7.3 Fire Panel programming

Make sure that the serial printer port is enabled. For details, see the panel documentation.

8.7.4 7770 FireTap JP1, FACP Selection Jumpers

Siemens MXL Protocol is selected by placing a shorting bar jumper onto terminals 8 on JP1. This also selects 9600 Baud for the Siemens MXL Protocol. Place Supervision jumper on the JP1 SV to Supervise the Siemens to 7770 FireTap Cable.





8.7.5 Siemens MXL to Ademco CID Translations

Siemens MXL Modules are Mapped in to Ademco CID Group field, Device Numbers go into CID Point field. System Events (Module 253 are Mapped to Group Code 00.) Module numbers greater than 99 are capped at 99 and Point is set to 999 to indicate an error.

8.7.6 Examples

ALARM 1-12 12:39:08 Oct 10, 2008 #1 MANUAL STATION MSI-1 Manual Station
7770 FireTap Translation = "1234 18 E115 33 C012" Pull Station Module 33 Point 12

TROUBLE IN 253 16:40:59 Oct 10, 2008 ****** M-DACT TESTING PANEL******, AC Fail or Brownout, MXL Panel
7770 FireTap Translation = "1234 18 E301 00 C000" System Trouble AC

TROUBLE OUT 253 16:42:41 OCT 10, 2008 ****** M-DACT TESTING PANEL******, AC Fail or Brownout, MXL Panel
7770 FireTap Translation = "1234 18 R301 00 C000" System Trouble AC

RESET 16:52:32 Oct 10, 2008 System Reset.
7770 FireTap Translation = "1234 18 E305 00 C000" System Reset

TROUBLE IN 253 16:55:44 Oct 10, 2008 ****STANFORD AES TEST PANRL****, Battery Fuse/Wiring Open, MXL Panel
7770 FireTap Translation = "1234 18 E302 00 C000" Low System Battery

TROUBLE IN 1-11 17:05:34 Oct 10, 2008 HEAT DETECTOR, Dev communication Error, FPT-11 Thermal Only Det.
7770 FireTap Translation = "1234 18 E380 01 C011" Sensor Problem

ALARM 100-11 15:06:50 Sep 20,2007 #1 GENERAL ALARM, Pseudo I/O
7770 FireTap Translation = "1234 18 E110 99 C999" Error

8.7.7 Examples of events and automation messages

The following examples were made using the configuration listed next:

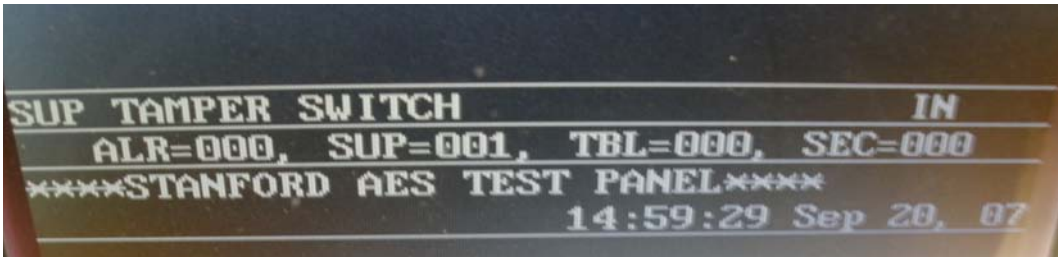
FP-11 Smoke Detector,
FPT-11 Fixed Heat Detector,
Pull Station.
Tested with Revision V16.0
Tested MMB 20.16, ANN-2 Rev 1.0

The 7770/7788F subscriber ID#9996 was interfaced to a 7705 (Multinet)

8.7.7.1 Monitor module tamper, Loop1 Device 14

Monitor Module 1 device 14 will translate to Group 01, Zone 14.

FACP LCD



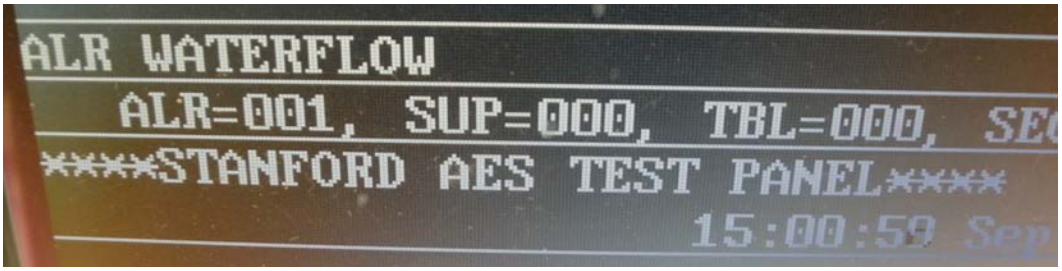
Multinet IPctrl

Automation results

8.7.7.2 Monitor module WaterFlow Loop1 Device 13

Monitor Module 1 device 14 will translate to Group 01, Zone 1.

FACP LCD



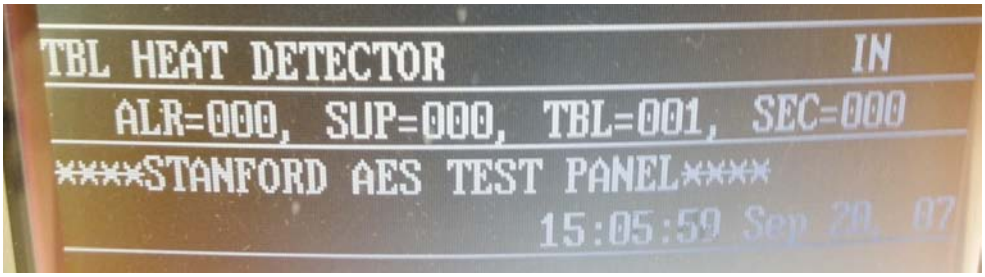
Multinet IPctrl

Automation results

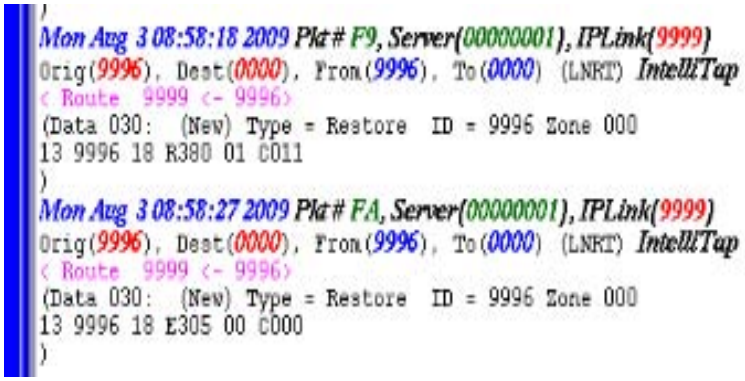
8.7.7.3 Heat Detector Loop1 Dev 11

Will translate to Group 01, Zone 11.

FACP LCD



Multinet IPctrl

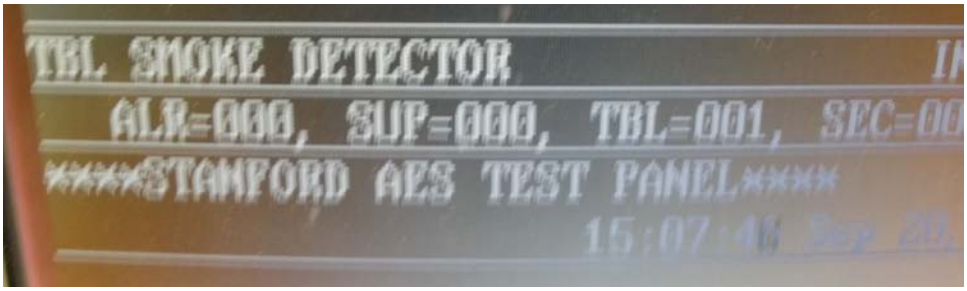


Automation results

8.7.7.4 Smoke Detector Loop1 Dev 10

Will translate to Group 01, Zone 10.

FACP LCD



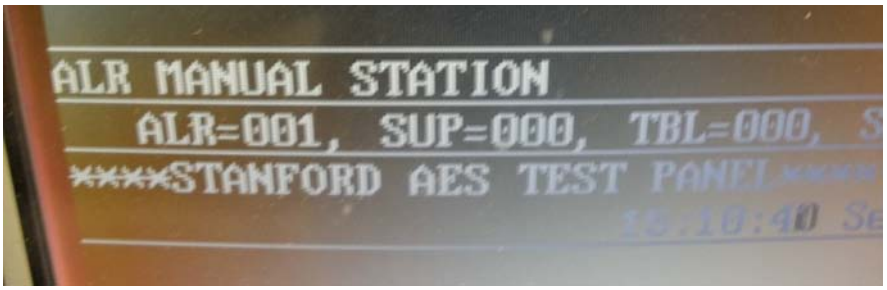
Multinet IPctrl

Automation results

8.7.7.5 Pull Station Loop1 Dev 12

Will translate to Group 01, Zone 12.

FACP LCD



Multinet IPctrl

```
)
Mon Aug 3 08:41:59 2009 Pkt # E9, Server{00000001}, IPLink{9999}
Orig(9996), Dest(0000), From(9996), To(0000) (LNRT) IntelliTap
< Route  9999 <- 9996>
(Data 030:  (New) Type = Restore  ID = 9996 Zone 000
13 9996 18 E115 01 C012
)
Mon Aug 3 08:44:05 2009 Pkt # EB, Server{00000001}, IPLink{9999}
Orig(9996), Dest(0000), From(9996), To(0000) (LNRT) IntelliTap
< Route  9999 <- 9996>
(Data 030:  (New) Type = Restore  ID = 9996 Zone 000
13 9996 18 E305 00 C000
```

Automation results

```
13 9996 18 E115 01 C012
13 9996 18 E305 00 C000
```

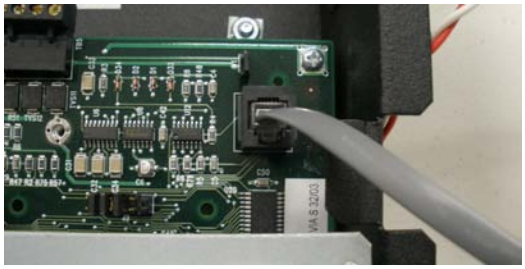
8.8 FCI-7100

Tested Version 6.3 - 001

8.8.1 Fire Panel connection

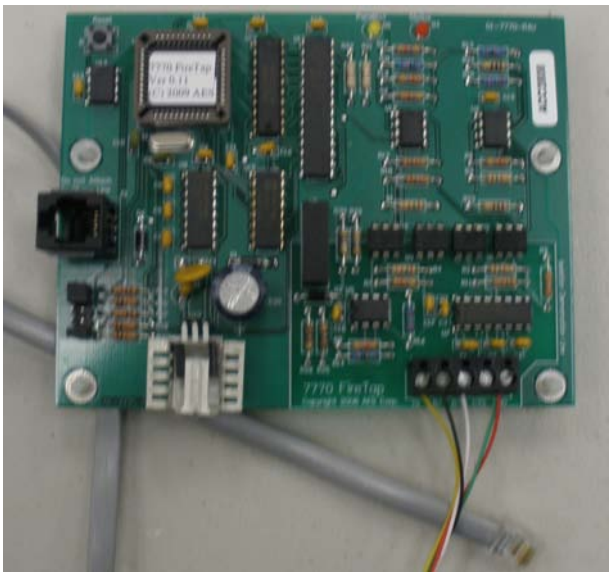
The AES 7770 FireTap II attaches to FCI-7100 Serial Port **J3 (RJ-11 Teleco)**.

Five wires are attached between **J3** on the **FCI-7100** FACP Modular RJ-11, Jack, and **J1** on the AES 7770 FireTap.



FCI-7100 J3		7770 J1
1	NC	
2	→	**TX J1-1**
3	→	**Gnd J1-5**
4	→	**Gnd J1-5**
5	→	**Rx J1-2**
6	→	**RTS J1-3**

Program Port for
- 9600 Baud,
- 8 Data Bits,
- NoParity,
- 1 Stop Bits



8.8.2 Connection supervision

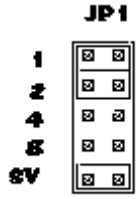
The connection between the 7770 and the FACP is supervised by the 7770. That means that if the 7770 is disconnected from the FACP, the 7770 will issue an alarm message. The FACP also supervises the connection, and it will also trip the trouble relay. The 7770 uses the CTS line to supervise the connection. The FACP also supervises the 7770.

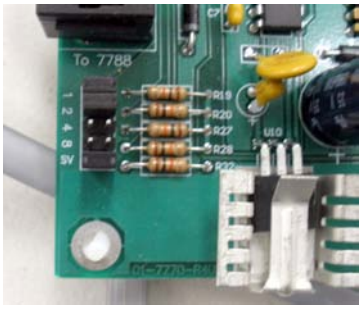
8.8.3 Fire Panel programming

Consult manual for port programming.
Program Port for 9600 **Baud,** 8 **Data Bits,** No**Parity, Stop Bits**

8.8.4 7770 FireTap JP1, FACP Selection Jumpers

Gamewell FCI-7100 Protocol is selected by placing shorting bars onto terminals **1, and 2** on **JP1**. This also selects **9600** Baud, **8** Data, **N**o Parity, **1** Stop Bit. Add a jumper on the **SV** Position to add serial port supervision.





8.8.5 FCI to Ademco CID Translations

FCI-7100 has Two (2) SLC Loops. Each loop supports 99 Gamewell-FCI approved analog sensors, and 98 addressable monitor/control devices.

The 7770 FireTap will Map
SLC Loop 1 sensors L1S01 to L1S99 to Points C001 to C099.
SLC Loop 2 sensors L2S01 to L2S99 to Points C101 to C199.
Addressable Modules L1M01 to L1M98 to Points C201 to C299
Addressable Modules L2M01 to L2M02 to Points C301 to C399.

8.8.6 Examples

FIRST ALARM: Manual Station L1M01 00:11:42 01/01/99
7770 FireTap Translation = "1234 18 E115 00 C201" Pull Station Alarm

FAULT: Negative Grnd 00:17:24 01/01/99
7770 FireTap Translation = "1234 18 E310 00 C000" Ground Fault

ALARM: Photo Detector L1S02 00:19:48 01/01/99
7770 FireTap Translation = "1234 18 E111 00 C002" Smoke Detector

FAULT: AC Line 00:37:12 01/01/99
7770 FireTap Translation = "1234 18 E301 00 C000" AC Failure

FAULT RSTRD: AC Line 00:37:32 01/01/99
7770 FireTap Translation = "1234 18 R301 00 C000" AC Failure Restoral

FIRST ALARM: Acclimate L1S03 01:45:44 01/05/99
7770 FireTap Translation = "1234 18 E111 00 C003" Smoke Detector

8.8.7 Examples of events and automation messages

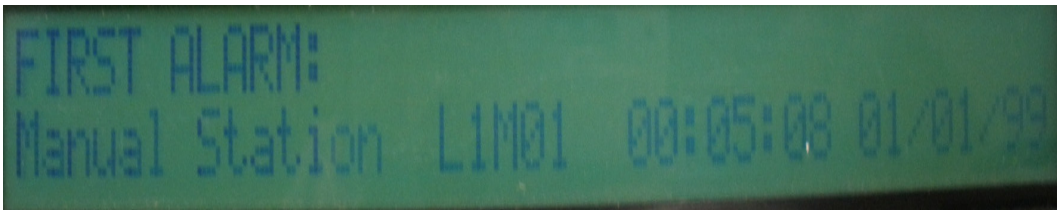
The following examples were made using the configuration listed next:

MS-7AF Pull Station,
AOM-2RF Relay,
AMM-4F Monitor Module,
PID-SS Monitor Module,
ASD-PL2F Smoke Detectors,
MCS-ACCLIMATE2F Smoke Detector.
Interface Supervision is by FireTap. Interface is Bidirectional.
Tested with Revision 6.3-001 Firmware.

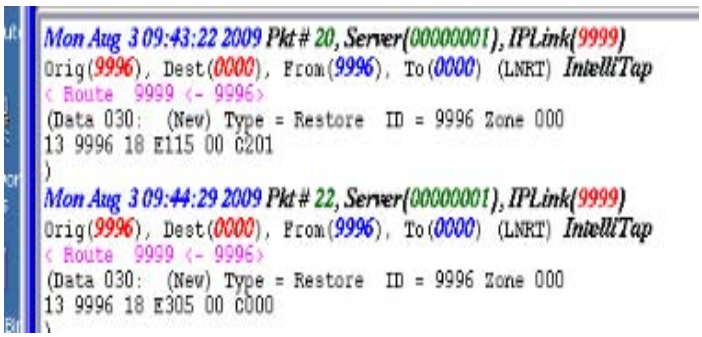
The 7770/7788F subscriber ID#9996 was interfaced to a 7705 (Multinet)

8.8.7.1 Pull Station 1 on Loop 1

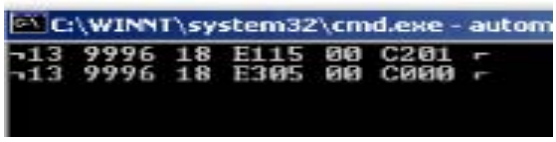
Loop1 1, module 1, will translate to Group 00, Zone 201
The event is followed by a reset on the panel, that generates the E305 event.
FACP LCD



Multinet IPctrl

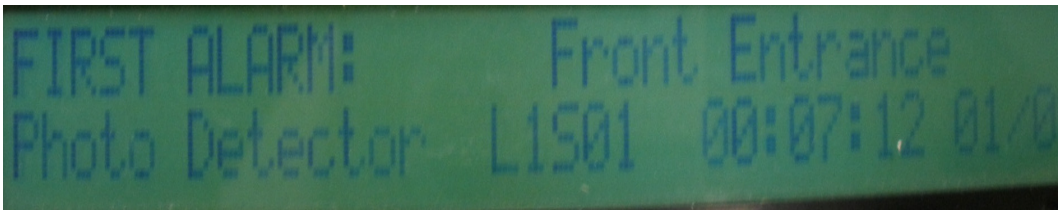


Automation results

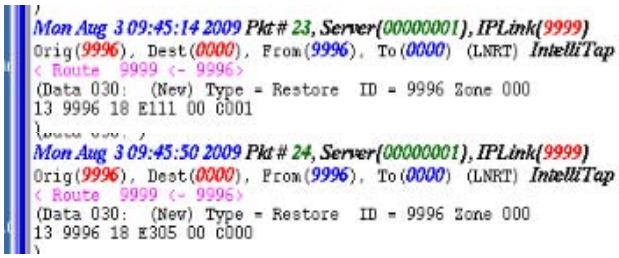


8.8.7.2 Smoke Detector Loop1 Sensor 1

Loop1 1, sensor 1, will translate to Group 00, Zone 1
The event is followed by a reset on the panel, that generates the E305 event.
FACP LCD



Multinet IPctrl

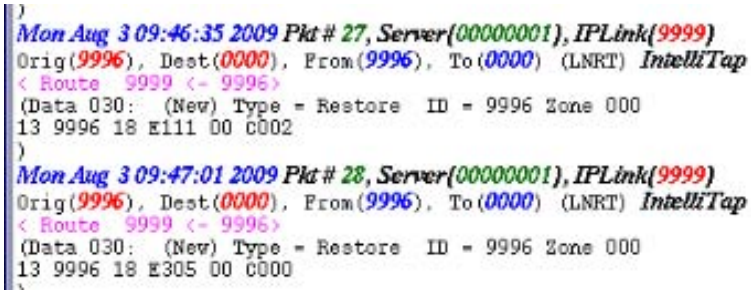


Automation results

8.8.7.3 Smoke Detector Loop1 Sensor 2

Loop1 1, sensor 1, will translate to Group 00, Zone 2
The event is followed by a reset on the panel, that generates the E305 event.
FACP LCD

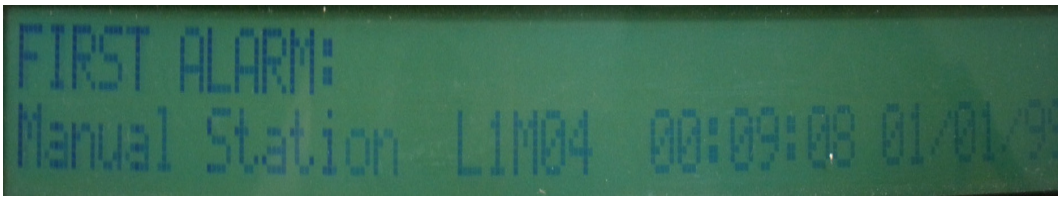
Multinet IPctrl



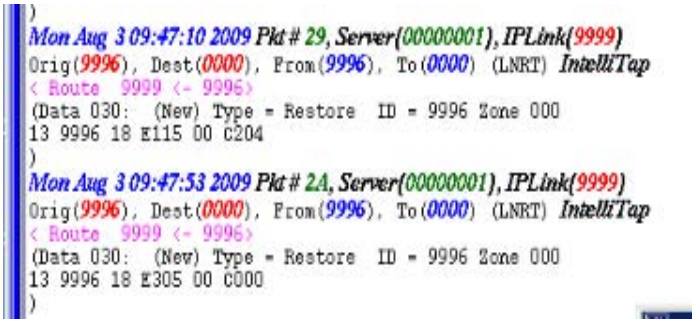
Automation results

8.8.7.4 Pull Station 4 on Loop 1

Loop1 1, module 4, will translate to Group 00, Zone 204
The event is followed by a reset on the panel, that generates the E305 event.
FACP LCD



Multinet IPctrl



Automation results

8.8.7.5 Pull Station 30 on Loop 1

Loop1 1, module 30, will translate to Group 00, Zone 230
The event is followed by a reset on the panel, that generates the E305 event.
FACP LCD

Multinet IPctrl

Automation results

9. Built-in tests of the 7770

9.1 Required material

- 7770 (UUT = Unit Under Test)
- Test cable
- Power soruce for the 7770

9.2 Test cable construnction

. Loop J2 (Radio Interface) to J1 (FACP Interface).

J2 Pin 2 ← RTS J1 DSR to RTS (RTS is Isolated output to Radio DSR input).
J2 Pin 3 → CTS J1 DTR to CTS (DTR is Radio Output to CTS Isolated Input).
J2 Pin 4 ← TX J1 Rx to Tx (Radio Tx output to Isolated Rx input).
J2 Pin 5 → RX J1 Tx to RX (Isolated Tx output to Radio Rx input).
J2 Pin 6 ←→ GND Gnd to Gnd.

9.3 Activating the built-in test mode

The built-in test mode is activated when all four Selection jumpers are grounded.

9.4 Functions verified by the built-in test

The 7770 has 2 LED's these will indicate Problems, or Success.

J2 DTR line Cannot be controlled (Tied to our reset signal)
but look for J1 CTS signal high. If not light Red D4 LED.

Toggle J1 RTS Signal, Look for J2 DTR line to Toggle as well.
If not light Yellow LED D5.

Send a Test Mesage from J2 Tx to J1 Rx. If we receive the message,
and or Terminator. Fast Blink the Red LED.

Got a Message but it does not match search string. Slow Blink Red LED.

Send a test message back from the Isolated port into the Radio Serial port.
If we don't receive Message/Terminator. Fast Blink Yellow LED.

. If we received a message but not a text match. Slow Blink Yellow LED.

. **All tests passed**. Alternately blink Yellow, and then Red LED.

9.5 Step-by-step procedure

1. Plug the test shorting block on to JP1. All of the Selection jumper positions are selected. This selects the 7770's Built in Test Routines

2. Attach test cable to 7770's, 5 Position Terminal Block J1. Pin 1 is Marked with Black Band, and goes into J1 Left most Position (Tx.) Tighten all five Terminal Block Screws.

3. Attach Power / Battery leads to a power source / battery. The red wire attaches to battery + (Positive) Terminal, black wire attaches to battery – (Negative) Terminal.

4. Now plug the RJ11 end of the test cable into J2. This powers up the 7770 and starts the Built in Test.

5. The First test is the blinking of the two 7770's LED's in Unison. This Test that the LED's work and can be controlled by the Micro.

6. Now remove the test shorting block from JP1. This starts the two Communication Serial ports on the 7770. Both LED's indicators will be turned off during the tests.

7. If a test fails? A LED Diagnostic Pattern will be signaled, and all further tests will be suspended.

8. If a test fails? Make sure that the test cable is connected properly.

When all tests are completed with out error. The Success Diagnostic Pattern will be illuminated. This Pattern is to Alternately Blink each LED, Yellow, and then the Red.

9.6 LED Diagnostic Test Patterns (Built in Test)

Red **Status** LED (D4) **On Solid** = Isolated CTS Line Problem.

Yellow **PanelAct** LED (D5) **On Solid** = Radio DSR, or Isolated RTS Line Problem.

Red **Status** LED (D4) **Slow Blink** = Radio to Isolated Serial Message. Text Match Problem.

Red **Status** LED (D4) **Fast Blink** = Radio to Isolated Serial Message. No Message or Terminator.

Yellow **PanelAct** LED (D5) **Slow Blink** = Isolated to Radio Serial Message. Text Match Problem.

Yellow **PanelAct** LED (D5) **Fast Blink** = Isolated to Radio Serial Message. No Message or Terminator.

Yellow **PanelAct** (D5), and Red **Status** (D4) LED's **Blink together** = LED Test + Waiting to Start.

Yellow **PanelAct** (D5), and Red **Status** (D4) LED's **Blink Alternately = Success All Test Pass.**

10. CONNECT A ZONE ON THE SUBSCRIBER UNIT IN ADDITION TO THE FireTap

It is strongly recommended that a least one output of the alarm panel be connected to the AES Subscriber Unit when using the FireTap. The activated zone serves as a general alarm. The alarm monitoring screen should comment that additional information should follow and what action to take if it does not. If the alarm panel has the necessary outputs you can send general alarms for more specific clarification, such as General Fire, Burglary, Panic, etc.

TEST PROCEDURES

- Notify the Central Station that a test is in progress.
- Trip the alarm control panel. The FireTap LED indicator will blink as the panel's data message is recognized and accepted.
- Check with the central station that the correct message was received.

11. Contact Information

AES Corporation
285 Newbury Street
Peabody, Massachusetts 01960 USA
Telephone: (978) 535-7310
Toll Free: (800) 237-6387
FAX: (978) 535-7313
Email: alarminfo@aes-intellinet.com

GENERAL
Telephone: (978) 535-7310
Email: alarminfo@aes-intellinet.com

SALES
Telephone: (978) 535-7310
Email: sales@aes-intellinet.com

SUPPORT & SERVICES
Telephone: (978) 535-7310 Option 4
Email: support@aes-intellinet.com

12. Revision History

Date	Revision	Author	Notes
2008DEC14	1.0	Eng	Initial draft (BG,JB,RD)
2008DEC15	1.1	Eng	RD review, figure inclusion
2008DEC16	1.2	Eng	Led pattern inclusion
2008DEC16	1.3	Eng	Multiple panels inclusion - partial
2009SEP09	1.4	Eng	New panels inclusion
2009OCT28	1.5	Eng	Updated with beta feedback

This Page intentionally
left Blank


AES
CORPORATION
IntelliNet
For Alarm Monitoring