



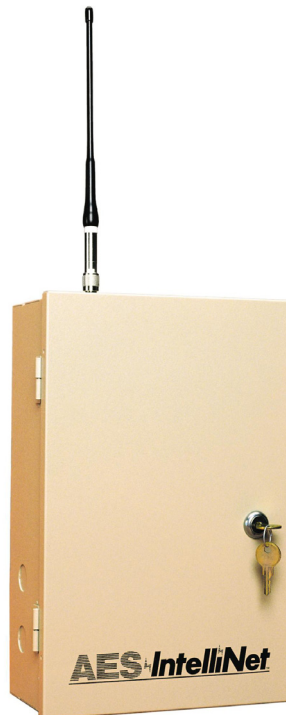
AES Bosch FDX

(Formally AES Radionics FDX)

DX4010i / D9133DC Interface

7450-RAD Firmware Version 1

Installation and Operation Manual



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Introduction

This manual covers the AES Bosch FDX interface, that is a combination of a specially programmed AES Subscriber and equipment manufactured by Bosch that allows a compatible Bosch alarm panel to transmit full data to the alarm monitoring system utilizing the AES IntelliNet Wireless Radio Network.

The specially programmed AES Subscriber understands Modem IIIa² Protocol from a Bosch DX4010i or D9133DC Serial Interface Module. The Subscriber converts the Bosch message to an Ademco Contact ID message that can be passed through the AES IntelliNet network in a standard “IntelliTap Type 1” packet. This translation was selected in order to utilize an existing packet type that most existing AES IntelliNet systems could recognize, rather than to develop a new packet type requiring upgrades to all existing.

Questions concerning the Bosch portion of this interface should be directed to the appropriate support persons responsible for your Bosch products.

Note: This interface was formally known as the AES Radionics FDX Interface.

Description:

The AES Model 7450-RAD Bosch Interface connects to a Bosch alarm panel via a Bosch DX4010i or D9133DC Serial Interface Module.

A Bosch DX4010i or D9133DC Serial Interface Module is required to connect to the Bosch panel.

An AES 13-0344E serial cable is required to connect the Serial Interface Module's DB9 male connector to the J1 programming jack of a 7450-RAD

The Bosch alarm panel must have firmware version 6.30 or higher and be specially programmed to utilize this interface.

The Bosch messages will be translated into an Ademco CID message to utilize an existing packet type in the IntelliNet system.

Requirements:

- An AES IntelliNet system that is IntelliTap ready. Preferable using the AES Ademco 685 emulation.
- A 7450-RAD Subscriber unit. This is a standard 7450 with RAD9133 firmware.
- An AES 13-0344E serial cable.
- A Bosch DX4010i or D9133DC Serial Interface Module.
- A compatible Bosch alarm panel with AES compatible firmware.
Compatible Bosch panels are the 9000 series including D7212, D7412, D9112 and D9412 and G Series that include the GV2 panels.
- The Bosch panel must have firmware version 6.30 or higher. Contact Bosch for the latest version of the firmware.

Installation of the Bosch FDX Interface:

- Install and test the 7450-RAD as you would with any AES Subscriber, keeping in mind the cabling requirements of the various devices.
- The zone inputs of the 7450-RAD function normally. AES highly recommends you utilize at least one if not more of the 7450-RAD's zone inputs as a backup to the FDX or as initial notification of an event or alarm.
- Program your 7450-RAD as needed. No special programming required for the FDX interface.
- The communication parameters of the Serial Interface Module are different than the programming devices used on a 7450-RAD. The 7450-RAD is in a mode to accept programming commands for 30 seconds following a reset or power up. After 30 seconds or when exiting a programming function, the programming port on the 7450-RAD will switch to the communication parameters needed to communicate with the Serial Interface Module. If additional programming functions are needed, you must first press the reset button to initiate the programming communication mode.
- Install and connect your compatible Bosch alarm panel and Serial Interface Module.
- Connect the 13-0344E between the Serial Interface Module and the AES 7450-RAD.
- Program the Bosch alarm panel for communication with this interface. Information on required parameters can be found later in this document.
- Test your installation. Never leave an installation site operational until you confirm that the expected signals are being received for the proper account.

Programming Requirements of the Bosch Panel:

The Bosch panel's programming sections listed below must be configured properly in order for the Bosch FDX Interface to function.

- Routing:
 - Primary Device and Backup Device routing must be entered.
- Enhanced Comm:
 - Enhanced Comm must be changed to "Yes". Bosch default setting is No.
 - Path IP Address 1 to "0.0.0.0". Bosch default setting is 0.0.0.0.
 - Path 1 Ack Wait changed to "0". Bosch default setting is 13.
- SDI RAM / Enhanced Communication Configuration:
 - Baud Rate must be "9600". Bosch default setting is 9600
 - 9133 Port Number must be "7700". Bosch default setting is 7700
 - Parity / Stop set to "No / 1". Bosch default setting is No / 1.
 - Comm Mode set to "0". Bosch default setting is 0.
 - RTS Control set to "On". Bosch default setting is On.
 - DTR Control set to "On". Bosch default setting is On.
 - 9133 Supervision set to "Yes". Bosch default setting is No.
- DX4010i Serial Interface Module:
 - Set the dipswitches for address 88 as per the DX4010i manual.
- D9133DC Serial Interface Module:
 - A jumper must be placed over Pin 8 for the D9133DC to select SDI Address 88

AES Conversion Chart, Bosch to Ademco Event codes:

As stated before the Bosch messages received by the AES 7450-RAD are converted into an appropriate Ademco Contact ID message to be transmitted in a standard “IntelliTap Type 1” packet. Below is the conversion chart for those messages.

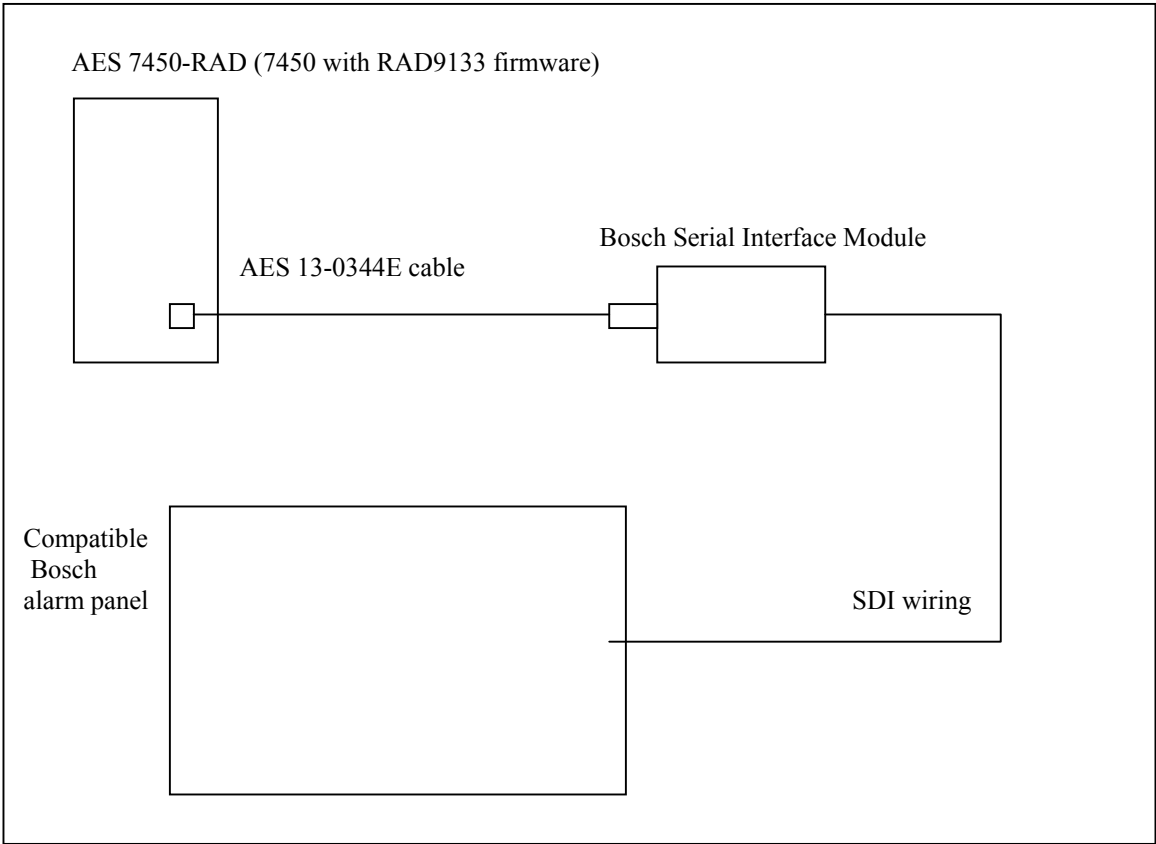
Bosch Event code	Description	Ademco Event code	Description
0x00	Skip	----	
0x01	Listen In	E606	Listen-in to follow
0x02	Ram Fail	E303	Ram Checksum bad
0x03	Access Granted	E422	User Access Gained
0x04	Duress	E121	Duress
0x05	User Alarm 7	E101	Personal Emergency
0x06	User Alarm 9	E122	Silent Panic Alarm
0x07	Bypass Point	E570	Zone Bypassed
0x08	Forced Point	E570	Zone Bypassed
0x09	Status Alarm	E300	System Trouble
0x0a	Status Trouble	E300	System Trouble
0x0b	Fire Alarm	E110	Fire Alarm
0x0c	Fire Trouble	E373	Fire Trouble
0x0d	Fire Missing	E532	Module Removed
0x0e	Fire Restoral Alarm	R110	Fire Alarm Restoral
0x0f	Fire Restoral Trouble	R373	Fire Trouble Restoral
0x10	Alarm	E140	General Alarm
0x11	Trouble	E380	Sensor Trouble
0x12	Trouble Restore	R140	Sensor Trouble Restore
0x13	Missing Alarm	E532	Module Removed
0x14	Missing Trouble	E532	Module Removed
0x15	Point Opening	E401	Open/Close By User
0x16	Point Closing	R401	Open/Close By User
0x17	Extra Point	E531	Module Added
0x18	Pt Bus Fail	E370	Protection Loop
0x19	All Points Tested	E611	Point Tested
0x1a	Alarm Restore	R140	General Alarm Restoral
0x1b	Fire Cancel	R118	Near Alarm Restoral
0x1c	User Code Added	E306	Panel Programming Changed
0x1d	Service Start	E616	Service Request
0x1e	Service End	R616	Service Request Restore

0x1f	Sensor Reset	E523	Alarm Relay disabled
0x20	Relay Set	R520	Sounder/Relay Restored
0x21	Relay Reset	E520	Sounder/Relay Disabled
0x22	Force Arm	E456	Partial Arm
0x23	Create Status Report	E605	Status to follow
0x24	Fire Walk Start	E614	Fire Zone Walk Tested
0x25	Fire Walk End	R614	(Restore of E614)
0x26	Walk Test Start	E607	Walk Test Mode
0x27	Walk Test End	R607	(Restore of E607)
0x28	Fail Open	E453	Failed to Open
0x29	Fail Close	E454	Failed to Close
0x2a	Area Watch	E641	Senior Watch Trouble
0x2b	Walk Test Point	E613	Intrusion Zone Walk Tested
0x2c	Extended Close Time	E458	User on the Premises
0x2d	Non-Fire Cancel	E406	Cancel
0x2e	Status Open	E403	Automatic Open
0x2f	Opening	E400	Open
0x30	Forced Close	R456	Partial Arm
0x31	Status Close	R403	Automatic Close
0x32	Closing	R400	Close
0x33	Test Report	E601	Manual trigger test report
0x34	Log Threshold	E622	Event Log 50% full
0x35	Log Overflow	E624	Event Log Overflow
0x36	Parameter Change	E306	Panel Program Change
0x37	User Code Tamper	E461	Wrong Code Entry
0x38	User Code Changed	E306	Panel Program Change
0x39	Sked Execute	E632	Access Schedule Change
0x3a	Sked Changed	E630	Scheduled Changed
0x3b	Date Changed	E625	Time/Date Reset
0x3c	Time Changed	E625	
0x3d	User Level Set	E429	Access Program mode exit
0x3e	Valid Access	E412	Successful download/access
0x3f	Invalid Access	E413	Unsuccessful Access
0x40	Valid Remote	E412	Successful download/access
0x41	Invalid Remote	E413	Unsuccessful Access
0x42	Comm Fail	E350	Communication Fail
0x43	Comm Restoral	R350	

0x44	Phone Fail	E351	Telco 1 Fault
0x45	Phone Restoral	R351	
0x46	R9133 Device Fail	E300	System Trouble
0x47	R9133 Device Restore	R300	"
0x48	AC Fail	E301	AC Loss
0x49	AC Restore	R301	
0x4a	Battery Missing	E302	Low Syetem Battery
0x4b	Battery Low	E309	Battery Test Failure
0x4c	Battery Restoral	R309	
0x4d	Watchdog Reset	E305	System Reset
0x4e	Supervision	E140	General Alarm
0x4f	Remote Reset	E305	System Reset
0x50	Rom Checksum Fail	E304	ROM Checksum Bad
0x51	Ram Checksum Fail	E303	RAM Checksum Bad
0x52	Re-Boot	E305	System Reset
0x53	Parameter Checksum Fail	E303	RAM Checksum bad
0x54	Force Perimeter Instant	E456	Partial Arm
0x55	Force Perimeter Delay	E456	Partial Arm
0x56	Status Perimeter Instant	E456	Partial Arm
0x57	Status Perimeter delay	E456	Partial Arm
0x58	Perimeter Instant	E456	Partial Arm
0x59	Perimeter delay	E456	Partial Arm
0x5A	Delete User	E306	Panel Program Change
0x5B	Point Buss Restore	R370	Protection Loop Restore
0x5C	Reserved	----	
0x5D	RF Battery Low	E384	RF Low Battery
0x5E	RF Battery Restore	R384	
0x5F	RF Tamper Restore	R383	Sensor Tamper
0x60	RF Rcvr Trouble	R353	Long Range Radio Xmitter Fault
0x61	Reserved	----	
0x62	Reserved	----	
0x63	Reserved	----	
0x64	Reserved	----	
0x65	RF Extra Point	E330	System Peripheral Trouble
0x66	RF Rcvr Restore Trouble	R330	System Peripheral Trouble Restoral
0x67	RF Interference	E344	RF Recvr Jam
0x68	Reserved	----	

0x69	Reserved	----	
0x6A	RF Tamper Alarm	E383	Sensor Tamper
0x6B	RF Tamper Trouble	E383	Sensor Tamper
0x6C	Reserved	----	
0x6D	Equipment Restoral	R300	System Trouble Restore
0x6E	Assign Card	E306	Panel Program Change
0x6F	Delete Card	E306	Panel Program Change
0x70	Cycle Door	E425	Egress Granted
0x71	Door Unlocked	E427	Access Point Door Status Monitor Trouble
0x72	Door Secure	R427	
0x73	No Entry Access Denied	E421	Access Denied
0x74	Door Left Open	E426	Access Door Propped Open
0x75	Door Request	E458	User on Premise
0x76	Network Fail	E356	Loss System Polling
0x77	Network Restore	R356	
0x78	Network Condition	E330	System Peripheral Trouble
0x79	Equipment Fail	E333	Expansion Module Failure
0x7A	Status Supervision	E380	Sensor Trouble
0x7B	Undefined	----	
0x7C	Fire Supervision	E200	Fire Supervisory
0x7d	Undefined		
0x7e	Undefined	----	
0x7f	Undefined	----	
0x80	Status Fire Supervision	E200	Fire Supervisory
0x81	Extra Account	E616	Service Request
0x82	Low Signal Strength	E353	Long Range Radio Xmitter Fault
0x83	RF Rcvr Tamper	E383	Sensor Tamper
0x84	RF Rcvr Tamper Restore	R383	

Block Diagram of a Bosch FDX installation:



AES Bosch FDX Interface version 1.00

Warranty

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