# INSTALLATION

# AES Intellinet<sup>™</sup> Radio Interface Options

## Description

**7050 Basic Reporting System** - This system uses the annunciator outputs of DMP XR10, XR20, 1912XR, and XR200 Command Processor<sup>™</sup> Panels to trip zones on the AES 7050 sending generic alarm and restoral reports to the AES Computer System at the central station.

**7050-DMP Expanded Reporting System** - This system uses the serial output capability of the DMP 1912XR and XR200 Command Processor<sup>™</sup> Panels to send full alarm, trouble, and system reports to the DMP SCS-1 Receiver through the AES Intellinet network. To be compatible with the AES radio system you'll need at least 1912XR/114 (4/12/96) and XR200/100 (4/5/96) firmware.

## Installing the 7050 Basic

Install the 7050 enclosure according to the installation instructions provided with the AES radio. Run the appropriate number of conductors between the AES radio and the DMP Command Processor<sup>™</sup> panel sufficient to provide one common and a single conductor for each annunciator output you'll be using.



Figure 1: XR10/XR20 wire connection to AES 7050

## AES zone input wiring (XR10 and XR20)

The XR10 and XR20 panels provide a short to ground on the annunciator outputs that **shorts** the zone on the AES 7050. Connect the Red (output 1), Yellow, Green, and Black (output 4) wires from the Model 300 Harness to AES 7050 zones Z1 to Z4.

Connect one end of the common wire at the AES radio to the negative power input terminal. Connect the other end to the battery negative terminal on the DMP panel.

## AES zone input wiring (1912XR and XR200)

Use the Form C outputs on the panel and wire the contacts for Normally Open operation. Connect the Common wire (Gray) on the Form C output to the negative power input terminal on the AES 7050 radio. Connect the Normally Open wire (Orange) on the Form C output to the zone input terminal on the AES 7050 radio.

## Zone programming for the AES radio

Program the zones on the AES 7050 for **N/O** operation and for restorals if required. Refer to the *AES 7050 Installation and Operation Manual.* 

#### Output programming for the DMP panel

You can program the annunciator outputs on the DMP panel to activate for a variety of system events such as fire, burglary, and ambush alarms and communication failures. Refer to the specific panel's programming guide for complete information.

## Installing the 7050-DMP

(1912XR and XR200 panels only) Install the 7050-DMP radio according to the AES installation instructions. Install the DMP 862N-AES or 462N-AES Interface Cards according to the instructions provided with the product.

#### Connecting the RS-232 cable

Plug one end of the 8 ft. RS-232 cable into the connector on the 462N-AES or 862N-AES Interface Card. Plug the other end into the **Serial Port/Programmer Connector** on the AES radio.

#### Configuring the 462N-AES and 862N-AES jumpers

Set the jumpers on the interface cards as shown in Figure 2.



Figure 2: 462N-AES and 862N-AES jumper configurations.

#### Communication programming for the DMP panel

Program the DMP panel for **Host** (**HST**) communication on either the main phone line or the 2nd phone line. *Programming note:* The DMP panel and the 7050 radio account numbers must be identical and must consist of 4-digits.

Refer to the 1912XR Programming Guide (LT-0171) or the XR200 Programming Guide (LT-0196) for Host communication programming instructions.

## What you'll need at the central station

When using the AES Intellinet<sup>™</sup> system in conjunction with the DMP SCS-1 Receiver at the central station, you'll need the following additional equipment:

- AES Model 7100 Controller Interface Computer
- AES Net 7000-DMP software
- DMP SCS1/807 (or higher) SCS-1 Receiver Firmware
- DMP SCS-101-AES Interface Card for the SCS-1

## Setting up the SCS-1 Receiver

There are three steps to configuring the SCS-1 Receiver for operation with the AES Intellinet network:

- 1. Configuring and installing the SCS-101-AES Card
- 2. Configuring the SCS-1 Receiver jumpers
- 3. Programming the SCS-1 Receiver



# SCS-101-AES jumper configuration

Set both **FORCE CTS** jumpers on the SCS-101-AES vertically to allow the SCS-101-AES to supply Clear To Send and Request To Send signals.

Set the jumper for **TXD** across the bottom two pins to configure the Transmit Data on pin 1 of the 10-pin edge connector. Set the jumper for **RXD** across the bottom two pins to configure the Receive Data on pin 3 of the 10-pin edge connector.

Slide the SCS-101-AES card into an available line card slot in the SCS-1 Receiver.

# SCS-1 Receiver jumper configuration

## SCS-1062 Processor Card.

Set the port card jumpers on the SCS-1062 card as shown below:



Figure 3: SCS-1062 jumper settings for ASYN operation

## Port configuration jumpers

After setting the jumpers on the selected port card for **ASYN** operation, you must also set the port configuration jumpers located on the main SCS-1062 card located in a row along the back of the individual port cards. Set the jumpers according to the list of pin numbers below for ASYN communication:

Line 1	2, 3, 6, 8	Line 4	25, 27, 30, 31
Line 2	9, 11, 14, 15	Line 5	34, 35, 38, 40
Line 3	18, 19, 22, 24		



**Figure 4:** Example 1 shows a port configuration jumper in position 1 for SDLC. Example 2 shows the jumper in position 2 for ASYN. Use this example to set the four jumpers on each port you've selected for asynchronous communication.

# **SCS-1** Receiver programming

## **CONfiguring the receiver line**

From the SCS-1 Receiver CRT Main Menu, type CON and press Enter. Press Enter until the CRT displays the line configuration screen. Under the heading "Type", enter the letters **ASYN** for the particular line (port on the SCS-1062) that will be using Asynchronous communication. Return to the Main Menu screen. The selected line will now be able to accept incoming reports from DMP 1912XR and XR200 panels using the asynchronous **Host** (HST) report format.

Although panels using asynchronous communication are not polled on a regular basis by the receiver, each report they send is responded to by the receiver with an **ACK**nowledgment signal.

# SCS-101-AES line programming

From the SCS-CRT screen on the SCS-1 Receiver system, select the appropriate line number that matches the location of the SCS-101-AES Card. Program the following options in the Line Configuration screen:

Line # Configuration					
SET TO DEFAULTS:	Ν	(Y/N)			
USE MODEM CONTROLS:	Ν	(Y/N)			
BAUD RATE:	4800				
AUTO FLAGS:	Ν	(Y/N)			
SNRM:	Ν	(Y/N)			
RESPONSE TIMEOUT:	00.8	(.1-10.0 SEC)			
CARRIER LOCKED ON PROCESSING:	Y	(Y/N)			
INTERPOLL DELAY:	.08	(.0199 SEC)			
FAILURES TO NO RESPONSE:	05	(1-10)			

Figure 5: SCS-1 Receiver Line Configuration

#### Understanding asynchronous communication

DMP asynchronous communication varies from standard DMP multiplex (synchronous) communication in two ways. First, asynchronous is not a polled format like DMP multiplex, where each system is polled regularly by the receiver. With asynchronous, the panel sends supervision reports when programmed and receives acknowledgment for the reports from the receiver in much the same way a dialer account would.

A major difference from dialer accounts, is the ability of the panel to use digital asynchronous networks, such as computer or long range radio networks, instead of standard analog phone lines.

Secondly, the data format differs using asynchronous communication. Standard reports sent by DMP panels are sent in Synchronous Data Link Control (SDLC) format. Reports from panels using asynchronous communication is in DMP Host format. Previously, this format was used only by the DMP SCS-1 Receiver to communicate with Host automation systems.

By selecting Host (HST) as the Communication Type in the panel, and Asynchronous (ASYN) as a the Line Configuration in the SCS-1 Receiver, alarm and system reports from **AES 7050-DMP** accounts can be accepted by the system without the need to convert any data.