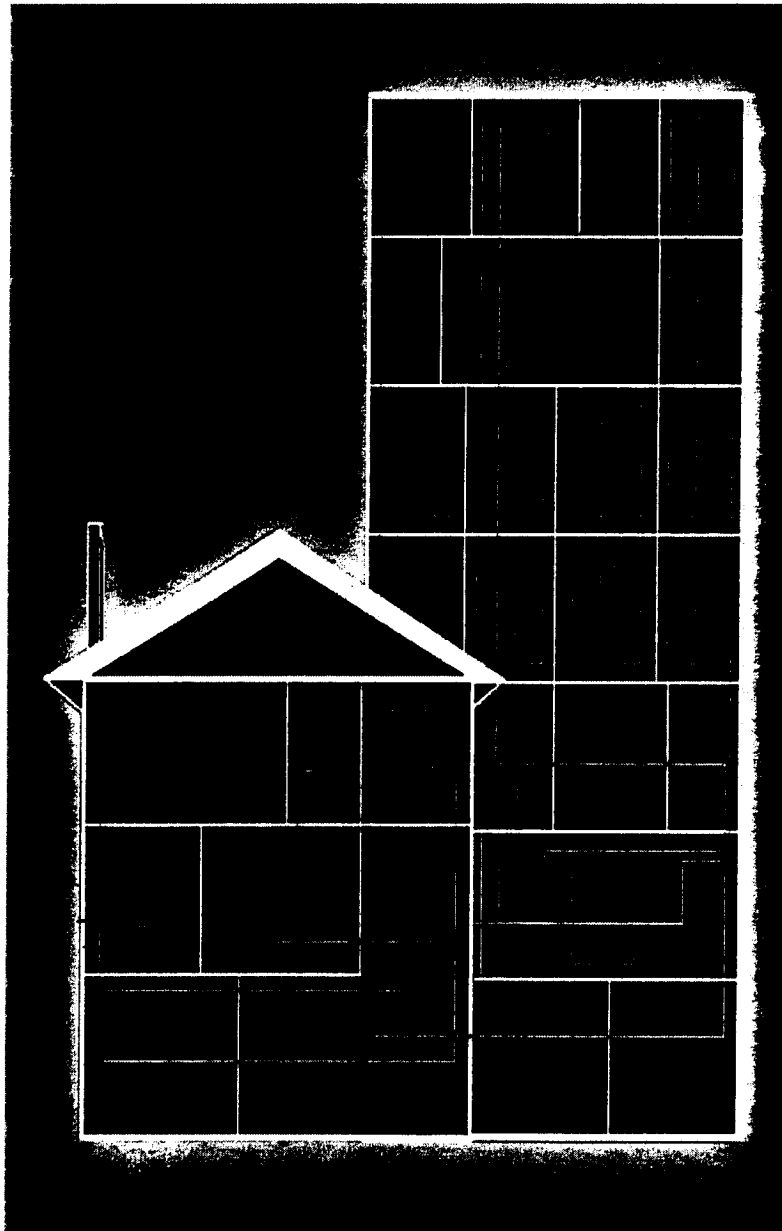
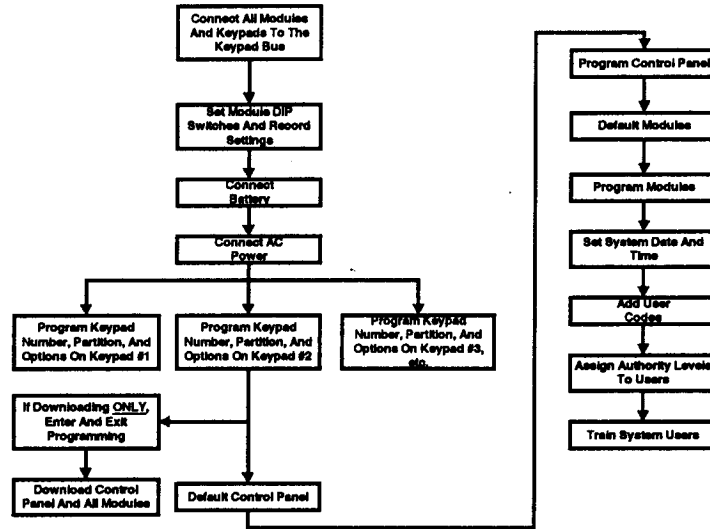


Installation

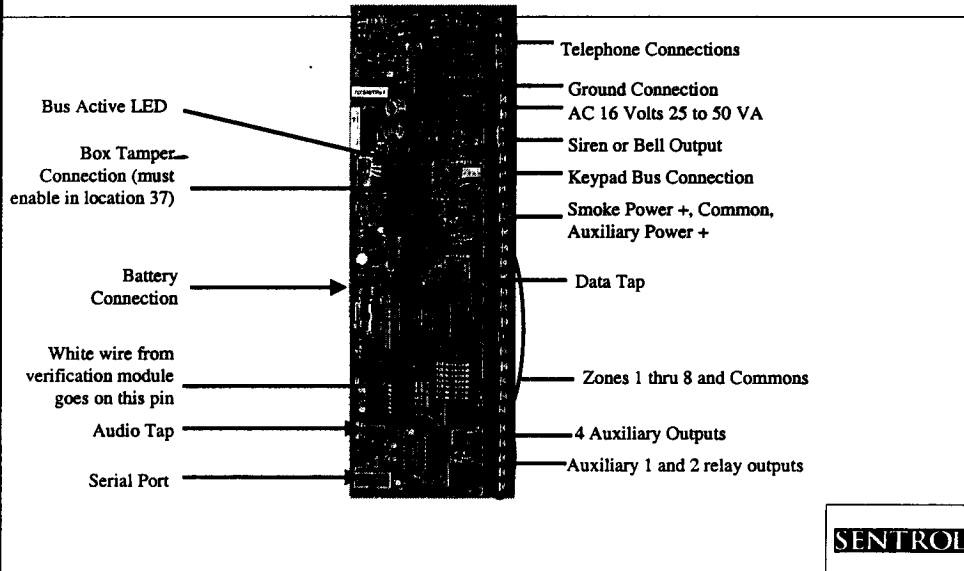


Sentrol University
Module 3

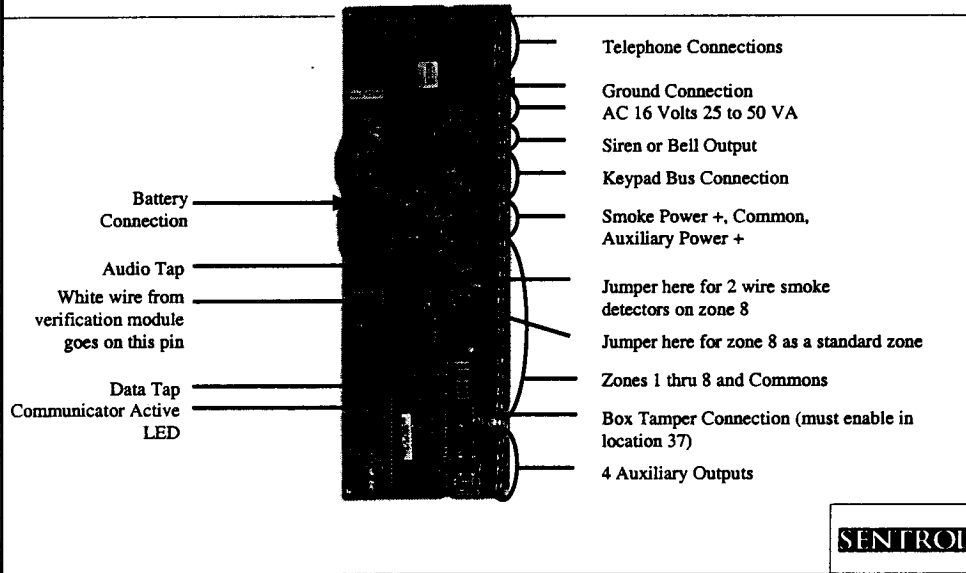
Control Panel Setup



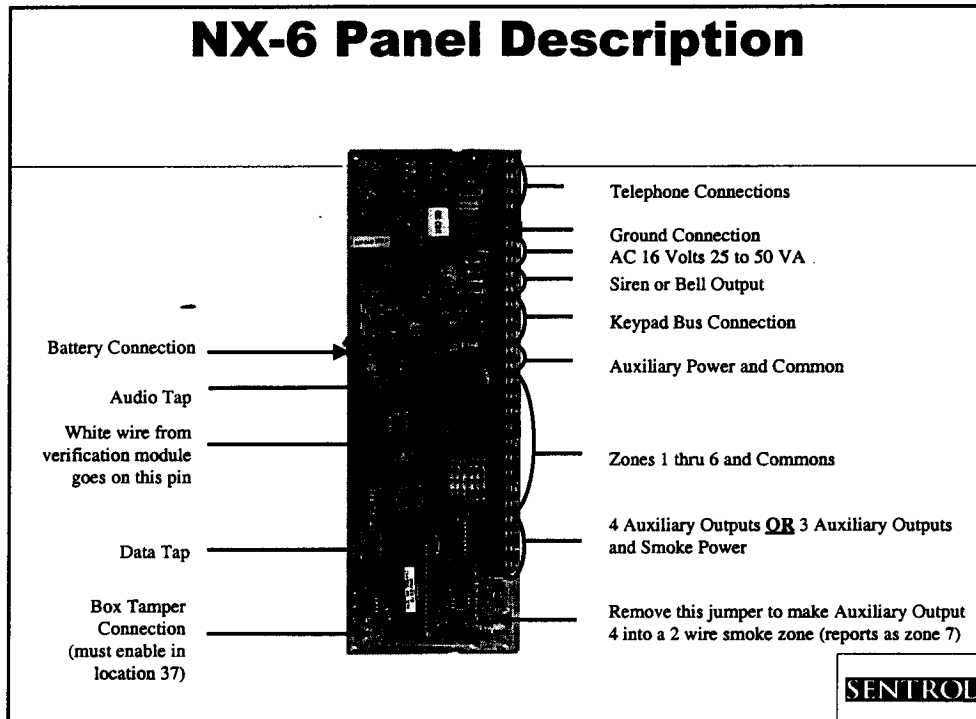
NX-8E Panel Description



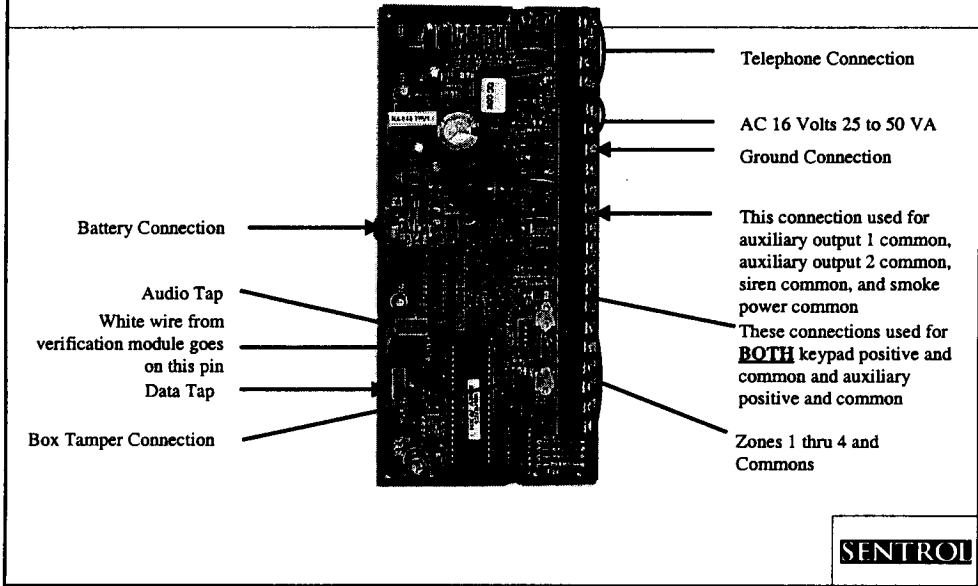
NX-8 Panel Description



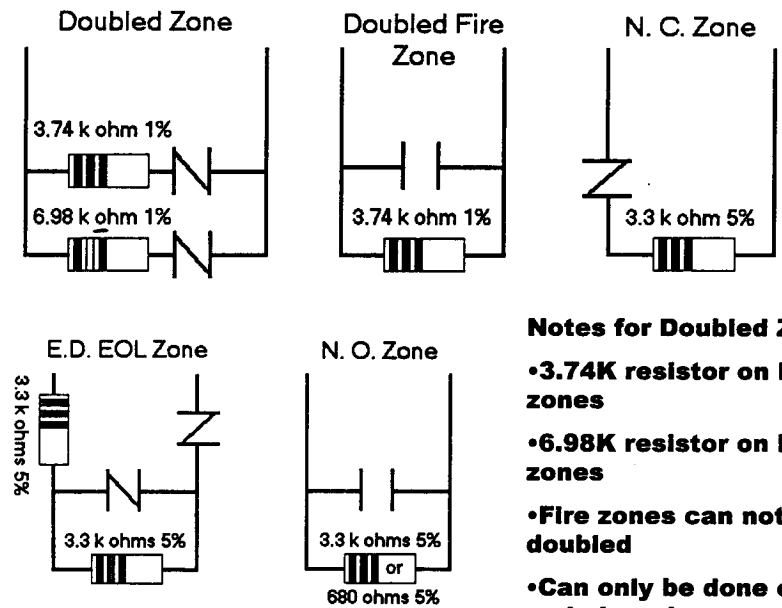
NX-6 Panel Description



NX-4 Panel Description



Zone Wiring



- Notes for Doubled Zones**
- 3.74K resistor on lower zones
 - 6.98K resistor on higher zones
 - Fire zones can not be doubled
 - Can only be done on the main board

NX-216 Hard Wire Zone Expander

- **The NX8 is expandable to 16 zones by zone doubling, or 48 zones with expander modules**
- **NX216-16 zone expansion module - Adding 1 to 16 additional zones to a system has never been this easy until now, with the NX-216 zone expander module. This microcontroller based “smart module” is easy to use, and features a modular design that slides into the X-Pand-A-Can™ enclosure of the NetworX NX-8 main control**

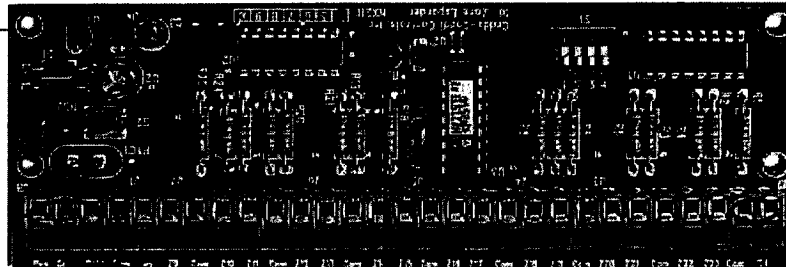
SENTROL

NX-216 Hard Wire Zone Expander

- **Can mount up to 2,500' from control**
- **Box tamper input**
- **Separate auxiliary power supervision**
- **Remote locatable**
- **Up to (5) NX-216 modules per NX-8, up to (11) NX-216 modules per NX-8E**
- **Can not be used on NX-6 or NX-4**

SENTROL

NX-216 Hardwire Expander



Tamper Jumper (Required) Auxiliary Power Connection
 Keypad Bus Connection Supervision LED Zone Connections (16 Sets)

Starting zone number	Expander # reported
Zone 9 (Switch 1 on)	23
Zone 17 (Switch 2 on)	16
Zone 25 (Switch 1 & 2 on)	17
Zone 33 (Switch 3 on)	18
Zone 41 (Switch 1 & 3 on)	19

SENTROL

NX-408, NX-416, NX-448 Wireless Zone Expanders

- **The NX Series can be expanded using the NX-408, NX-416, or NX-448 wireless receiver**
- **These receivers allow the integration of the most advanced wireless technology with the NetworX Series**
- **Eight, sixteen, or forty eight transmitters per receiver can be mapped to the partitions and individually displayed at the keypad for alarm and all supervisory reports**

SENTROL

NX-408, NX-416, NX-448 Wireless Zone Expanders

- Its modular design permits mounting in the X-Pand-A-Can™ enclosure with the main control, or up to 2500 feet away from the main control mounted in an NX-series can or an NX-469 receiver enclosure
- Provides the very best range and reliability in wireless systems today
- Up to four receivers can be used on a single NX-8, up to 8 on the NX-8E. Module limits apply on others

SENTROL

NX-408,416,448 RF Receivers

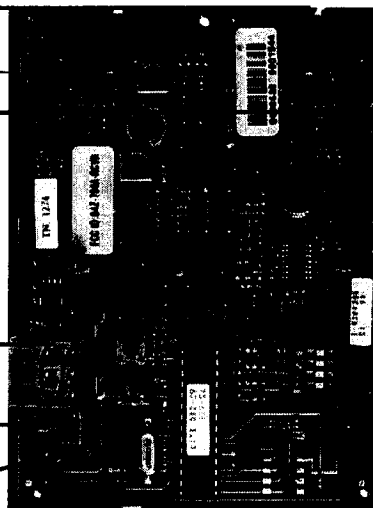
Notches for grounding
screw mounting nuts

Antenna Connections

Keypad Bus Connection

Green LED (Flashes when
signals are received)

Supervision LED



099 = NX-408

100 = NX-416

101 = NX-448

Switch Position	Function Reported
35	All switches off
36	Switch 1 on
37	Switch 2 on
38	Switches 1 & 2 on
39	Switch 3 on
32	Switches 1 & 3 on
33	Switches 2 & 3 on
34	Switch 1, 2 & 3 on

WIRE GAUGE	WIRE GAUGE
500' - 24 gauge	500' - 22 gauge
1000' - 22 gauge	1000' - 20 gauge
1500' - 20 gauge	1500' - 18 gauge
2500' - 20 gauge	2500' - 16 gauge

Note: Positions 36 thru
39 on NX-8E only

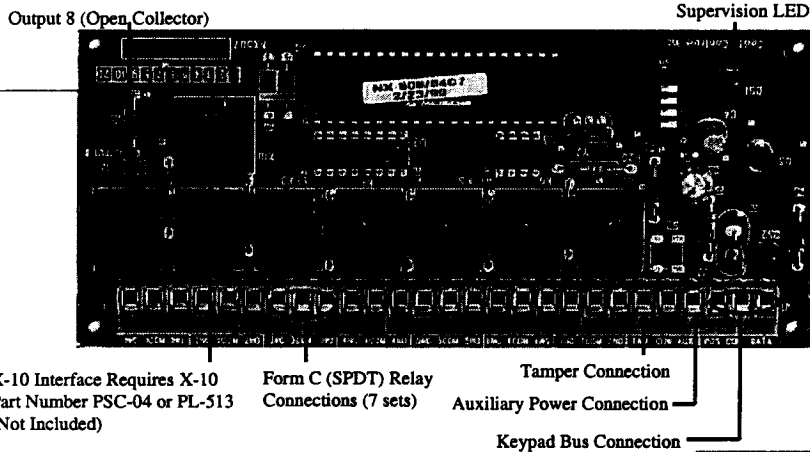
SENTROL

NX-507 8-Output Expansion Module

- **Flexible mapping from a large library of events or combination of events allows the NX-507 to become the director of lights, home automation, and industrial process control with either X-10 or relay (form C) outputs**
- **Control takes on a new meaning when the output options of the NX-507 are combined with the integrated system of power of the NetworX NX-8**
- **(7) form C relays, (1) open collector output, (8) X-10 outputs**
- **Can use up to (8) 507 / 508 boards per system**

SENTROL

NX-507 Relay Output Module



MAXIMUM WIRE RUN WHEN CONNECTED TO NX-8		MAXIMUM WIRE RUN WHEN CONNECTED TO NX-320	
If using Aux terminal	If NOT using Aux terminal	If using Aux terminal	If NOT using Aux terminal
250' - 24 gauge	250' - 24 gauge	250' - 22 gauge	500' - 22 gauge
500' - 20 gauge	750' - 24 gauge	500' - 18 gauge	750' - 20 gauge
1000' - 18 gauge	1000' - 22 gauge	1000' - 16 gauge	1000' - 20 gauge
1500' - 16 gauge	2000' - 20 gauge	1500' - 14 gauge	2000' - 16 gauge
2500' - 14 gauge	2500' - 18 gauge	2500' - 12 gauge	2500' - 16 gauge

2	ON	ON	OFF
2	OFF	OFF	ON
2	ON	OFF	ON
2	OFF	ON	ON
2	ON	ON	ON
2	OFF	OFF	OFF
2	ON	OFF	OFF
2	OFF	ON	OFF

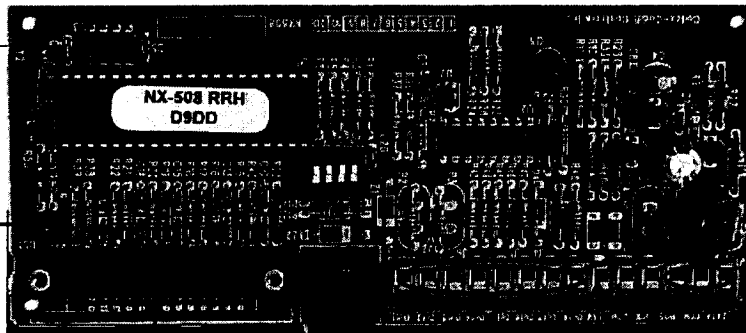
SENTROL

NX-508 Eight Output Expansion Module

- **Flexible mapping from a large library of events or combination of events allows the NX-508 to become the director of lights, home automation, and industrial process control with either X-10 or other power outputs**
- **This module also includes parallel printer outputs to allow for local hard copy reporting of all significant events**
- **Module has onboard buffer to store events in case the printer is not ready**
- **(8) open collector outputs in parallel with (8) X-10 outputs**

SENTROL

NX-508 O/C and Printer Module



Supervision LED Parallel Printer Port
X-10 Interface Requires X-10 Part Number PSC-04 or PL-513 (Not Included)

8 Open Collector
Outputs

Keypad Bus Connection

Tamper Connection

Auxiliary Power
Connection

	ON	ON	OFF
24	ON	ON	OFF
25	OFF	OFF	ON
26	ON	OFF	ON
27	OFF	ON	ON
28	ON	ON	ON
29	OFF	OFF	OFF
30	ON	OFF	OFF
31	OFF	ON	OFF

MAXIMUM WIRE RUN WHEN CONNECTED TO NX-6		MAXIMUM WIRE RUN WHEN CONNECTED TO NX-330	
If using Aux terminal	If NOT using Aux terminal	If using Aux terminal	If NOT using Aux terminal
250' - 24 gauge	250' - 24 gauge	250' - 22 gauge	500' - 22 gauge
500' - 20 gauge	750' - 24 gauge	500' - 18 gauge	750' - 20 gauge
1000' - 18 gauge	1000' - 22 gauge	1000' - 16 gauge	1000' - 20 gauge
1500' - 18 gauge	2000' - 20 gauge	1500' - 14 gauge	2000' - 18 gauge
2500' - 14 gauge	2500' - 18 gauge	2500' - 12 gauge	2500' - 10 gauge

SENTROL

NX-320 Smart Power Supply and Bus Extender

- **2 AMP Aux power with 16.5V 50VA transformer (will not use 40VA)**
- **When the job is too large for a conventional control, the NX-320 expands the options of the NetworX NX-8**
- **This “Smart Power Supply” can provide up to 2 amps of additional 12 volt Auxiliary power**

SENTROL

NX-320 Smart Power Supply and Bus Extender

- **Its modular slide-in design permits mounting inside the X-Pand-A-Can™ with the main control, or being mounted remotely up to 2,500 ft away, extending the total bus length to 5,000 ft for larger buildings, or satellite buildings located a distance away from the main building**
- **Up to (2) NX-320 modules can be used for bus extension (up to 7,500 feet total)**
- **Three 1.5 amp switched outputs**

SENTROL

NX-320 P. S. / Extender

LED 1 flashes when data is transmitted out from NX-320

Supervision LED

To backup battery

Keypad Bus In

LED 2 flashes when data is transmitted into NX-320

Data out

Output A (typically keypad bus out power), B, and C

Bell output is voltage only. Temporal for fire, steady for burglary. 3.3K resistor and diode required.

Earth ground

Tamper connection

Address	Switches	WIRE COLOR
HEX ADDRESS IN HEX	WHEN CONNECTED TO BUS	WIRE CONNECT TO BUS/ANALOG/DC
84 (All switches off)	400	24
85 (Switch 1 on)	500	24
86 (Switch 2 on)	1000	24
87 (Switch 1 & 2 on)	2000	22
88 (Switch 3 on)	2500	20
89 (Switch 1 & 3 on)		18
90 (Switch 2 & 3 on)		16
91 (Switches 1, 2, & 3 on)		

AC Connection (requires 16 volt, 50 VA transformer ONLY)

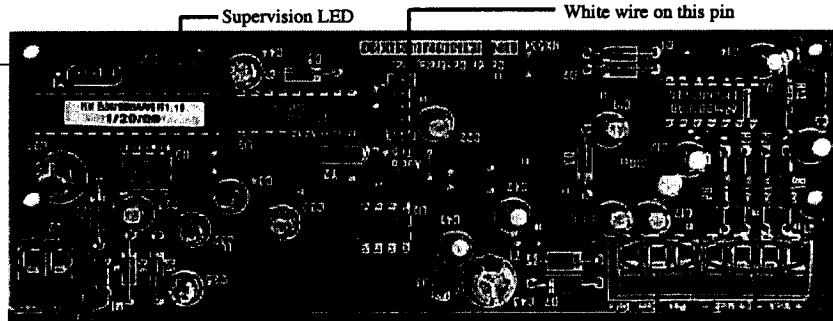
SENTROL

NX-534 Audio Module

- **The NX-534 combines the advanced features of two-way voice verification into the NetworX NX- series control**
- **7 wire hook-up for a basic system**
- **VERY low cost solution for 2 way voice or listen in**

SENTROL

NX-534 2 Way Voice / Listen In



Speaker Terminals

Maximum speaker wire run is 1000'

Minimum speaker rating is 5 watts, 8 ohms

- Address number 64

NX-534 wiring harness connects from this audio tap to the audio tap on the control panel.

Keypad Bus Connection

Microphone Channels A&B

Wire run can be 1000' if microphone wires are in separate jacket from speaker, 500' if in the same jacket

SENTROL

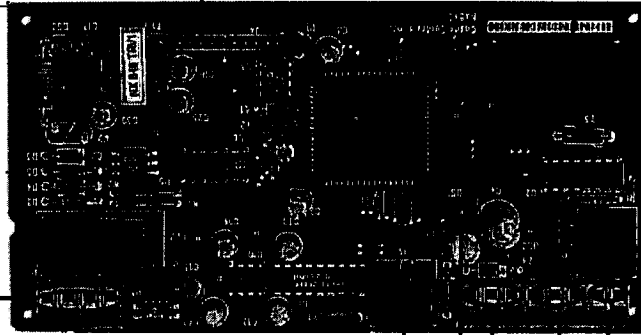
NX-540 "Operator II" Telephone Interface Module

- **Voice interface and system control via local or remote telephone access becomes even easier with the integrated NX-540 "Operator II"**
- **Controlling the alarm system with up to 32 X-10 outputs becomes as simple as dialing the operator**

SENTROL

NX-540 Operator II Telephone Interface

Thermostat Interface (Future Product)



Supervision LED
Keypad Bus Connection

X-10 Interface Requires X-10 Part Number PSC-04 or PL-513 (Not Included)

Form C (SPDT) relay output (follows X-10 Output Function 3)

Open Collector outputs 1 & 2. 100 mA rated. (follows X-10 Output Functions 1 & 2)

Telephone connections to house phones and control panel

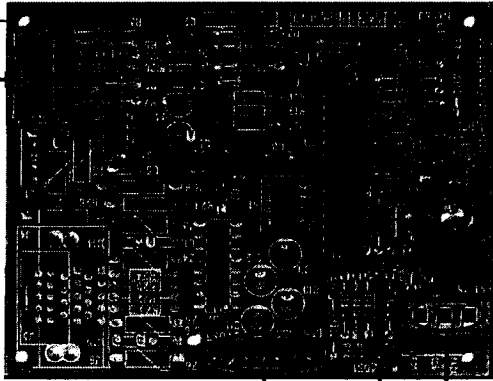
SENTROL

NX-580 Interface Module

- **The NX580 Interface module provides serial port interface to Up-Link alarm transmission utilizing a cellular technology called Cellemetry which is an all digital cellular backup technology**

SENTROL

NX-580 Uplink Interface



Connect ribbon cable supplied with Uplink 1600 radio here. Note the direction the cable should exit.

Description of these LED's in programming

Supervision LED

Keypad Bus Connection

- Address 76

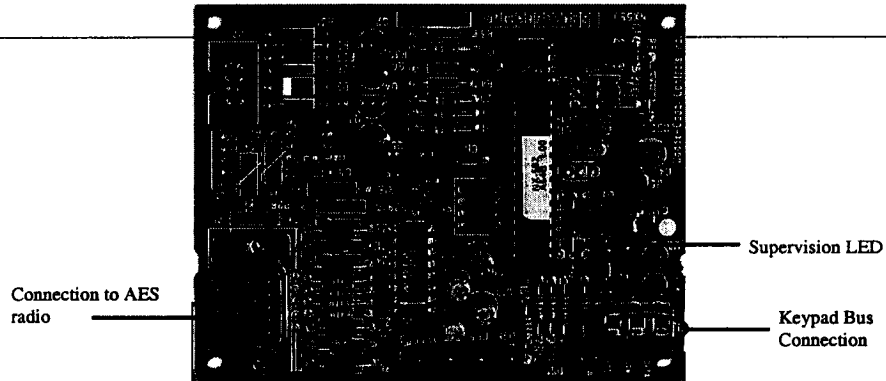
SENTROL

NX-582 Interface Module

- **Serial port to AES Intellinet interface long range smart radio for central alarm reporting**

SENTROL

NX-582 AES Interface



Description of these LED's in programming

250	24	24
500	24	22
1000	22	20
2000	20	18
2500	18	16

•Address is 77

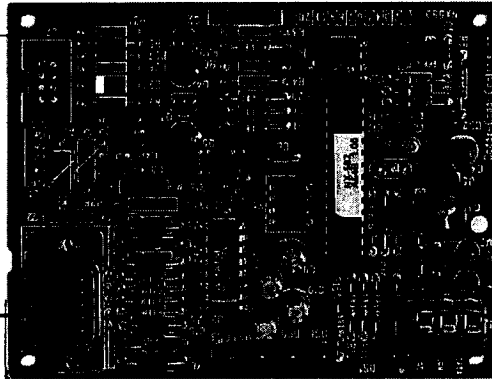
SENTROL

NX-584 Home Automation / Access Control Interface

- **Serial port interface with access control system or automation system**
- **Interface specification released to over 20 automation system suppliers**
- **ELK has product available, Keri and Crestron expected available Q4/00**

SENTROL

NX-584 Automation / Access Interface



Connection to automation
or access control system

Supervision LED

Keypad Bus
Connection

Description of these LED's in
programming

200	24	24
500	24	22
1000	22	20
2000	20	18
2500	18	16

•Address is 72

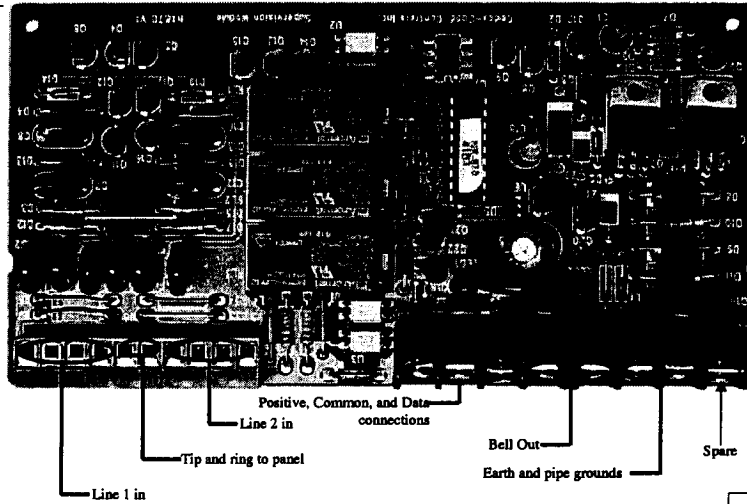
SENTROL

NX-870 Fire Supervision Module

- **The NetworX NX-8 Control can be utilized to monitor and report up to 48 zones of smoke detectors and/or other automatic fire devices when the appropriate zone expanders are combined with NC-870 Bell and Dual Phone line fire supervision module in most jurisdictions**
- **Fire capability can be combined with burglary protection to create complete protection for small commercial buildings with the NetworX NX-8**
- **Not available as a separate module, but available as part of the NX-8 Fire Alarm panel**
- **No programming required**

SENTROL

NX-870 Commercial Fire Module



SENTROL