

The AC input as well as the standby battery are individually monitored. Each auxiliary DC power output is continuously monitored. Even a fuse failure is detected and reported. All 61 radio zones, the radio receiver, the hardwired keypads, wireless keypads, the three hardwire zones, and the digital communicator are supervised. System software and firmware are continuously monitored to assure complete system operation. All fault conditions are displayed at any of the the hardwired keypads and can even be reported at the central station if either SESCOA superfast or SIA transmission formats are selected.

Installing the CP-90 is simple. Keyed mounting holes are provided for cabinet installation. Knockouts are provided on all sides as well as the back of the cabinet to allow wire access from any direction. The cabinet door can be removed during the installation procedure to provide better access to the panel. Installation instructions and terminal designations are provided on the cabinet door as well as on the PC board's protective cover. Standby batteries are mounted on a shelf and not just placed on the bottom of the cabinet. The printed circuit board assembly mounts on a sub-chassis which swivels out to expose an area for mounting siren drivers, an optional two-way voice board or other related auxiliary devices.

Panel reliability is achieved by incorporating extensive RF shielding as well as transient and lightning protection. Key components are encapsulated in metal shields. The four layer PC board makes extensive use of ground planes to shield key components from outside influences. Even the location of the standby batteries helps to isolate the radio receiver from the microprocessor board. The result—maximum radio sensitivity and greater range. It also prevents the radiation of noise from potential noise generating components. MOV's further protect the CP-90 from transient voltages.

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CP-90 Supervised Security Panel

- **64 Independently Programmed Sensor Zones**
 - 61 Radio Zones
 - 3 Hardwire Zones
- **Full System Supervision**
- **Multiple Alarm Outputs**
- **Built-in, Multi-format, Digital Communicator**
- **Advanced Superheterodyne Radio Receiver Technology**
- **Accepts Multiple Linear RF Formats**
 - Supervised SX
 - Supervised S1
 - Megacode
- **RF Error Detection and Correction Firmware**
- **Synchronized Audio Output Tones**
- **Optional 2-way Audio Interface**
- **Superior Transient Protection**

During the development of the 21st SENTRY security system package, careful thought was given to providing a versatile and complete system package, easy for the installer to work with as well as easy for the consumer to operate. The focal point of the 21st SENTRY system, the CP-90 control, allows Linear to achieve these system goals.

Consider the versatility of 61 supervised radio zones, 3 hardwire zones, 12 communicator formats, 2 sets of programmable Form "C" contacts, and 1 amp of 12 VDC supplementary power for both resettable and non-resettable auxiliary functions. Consider the capability of receiving three different Linear radio formats—our new 16 million code SX supervised format, our 65 thousand code S1 supervised format, and the 1 million code Megacode format. And, consider range capabilities of 3,500 feet which are made possible through the incorporation of narrow band superheterodyne receiver technology.

Total system supervision is accomplished from the CP-90 control.

General Panel Capabilities

Eighteen Reporting Groups

Perimeter
 Restricted Interior
 Interior
 Fire Environmental A
 Emergency
 Police/Hold-up
 Chime Only
 Automation #1
 Automation #2

Remote Panic/Emergency
 Remote Panic/Police
 Guard Zone

Environmental B
 Environmental C
 Arm/Disarm Toggle
 Access Only
 Remote Button Disable

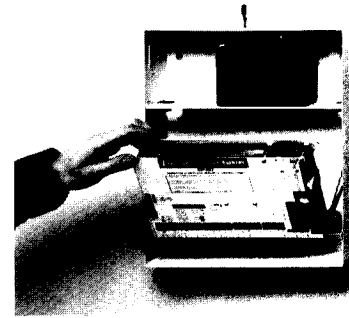
Full Supervision of . . .

RF Channels
 Hardwire Zones
 Communicator
 Radio Receiver
 Panel and Device Tamper

Hardwire Keypad Connection
 Power Sources
 AC Input
 Standby Battery
 All DC Outputs

Twelve Available Communicator Formats

Two Programmable Form "C" Auxiliary Relay Outputs
 Tone Generator for Synchronized Keypad Audio Output
 Auxiliary Output Power 1.0 Amps, 1.75 Amps Optional
 Ample Space for Add-on Options
 Optional Two-Way Voice Module



General Specifications

Color:	Light Gray
Cabinet:	Twenty (20) gauge locking metal cabinet
Size:	13 x 15.25 x 4 inches (33 x 38.7 x 10.2 cm)
Weight:	15 lbs. (6.82 kg)
Transformer:	U.L. Listed, Class II plug-in, 16.5 VAC, 35VA secondary, 120 volt, 60 Hz primary. Optional 16.5 volt, 50 VA transformer available for increased output capacity.
Backup Battery:	12 volt, 6 amp-hour lead acid (not supplied). Charging circuit sized for up to two batteries.
Power Supply:	
Output	13.8 VDC at 1 amp, regulated, with supplied transformer 13.8 VDC at 1.75 amp, regulated, with optional transformer
Ripple	Less than 200 millivolts, peak to peak
Radio Receiver:	Superheterodyne Receiver
Nominal Sensitivity	-106 dBm
RF Carrier Freq.	303.875 MHz +250 KHz
Antenna	1/4 wave whip (supplied)
RF Formats-	Linear SX, S1 and Megacode
Control Board:	
Hardwire Zones	Three (3), supervised with 2.2K Ohm EOL resistor
Radio Zones	Sixty-one (61) supervised
Emergency Zones	Three (3), keypad activated
Personal Access Codes	Thirty-two (32) of 2 to 5 digits each
Sensor Zones	Eighteen (18)
Auxiliary Relays	Two (2) independently controlled form "C" contacts rated at 5 Amps @ 30VDC
Auxiliary Outputs	Ten (10) alarm and control points, current limited, 12 VDC
Keypad Capacity	Eight (8) total including up to four (4) hardwire units
Memory	EEPROM retains system programming and arm/disarm status during total power failure
Transient Protection	Six (6) stage lightning and transient protection with four layer PC board technology
Operating Temp.	32 to 120 degrees F (0 to +50 degrees C)
Digital Communicator:	
FCC Registration	EF4793-730851-AL-E
Dialing	Touch-tone or Rotary (pulse). Rotary speed 10pps (60% break, 40% make)
Ringer Equivalence	0.6B
Reporting Formats	10, 20 and 40 PPS--3 x 1, 4 x 1, 4 x 2 and 3 x 1 two line extended. BFSK, SIA, and SESCOA superspeed.
Telephone Numbers	Primary, Secondary and Supervisory with up to 24 digits each.
Reports	Full zone and user ID's with SIA and SESCOA superspeed. Up to 15 zones and users with two-line extended formats.