SALCO™

Multi-Zone
Monitor / Annunciator
System Components

<u>*Security Companies Using Salco Systems*</u>

ADT Security
Advantor Systems Corporation
Sensormatic Electronics Corporation
Honeywell Inc
Integrated Access Systems Inc
Johnson Controls Inc
Securitylink from Ameritech
Robinson Alarm Company
Siemens Building Technologies Inc
Sonitrol Security Systems
Wells Fargo Alarm Services
Data-Watch Systems
Simplex Time Recorder
Diebold Inc
Chubb Security Systems
Video Master Inc

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ZONE ANNUNCIATOR / EXPANDER SYSTEMS

SALCO zone annunciator and expander systems have been functioning in the field for over thirty years. The systems accommodate normally open and normally closed protective loops simultaneously and common output relays with dry contacts easily interface with existing equipment.

Two Salco Zone Annunciator/Expander System Series are available as system components: the 700 Series and the CS-60 Series.
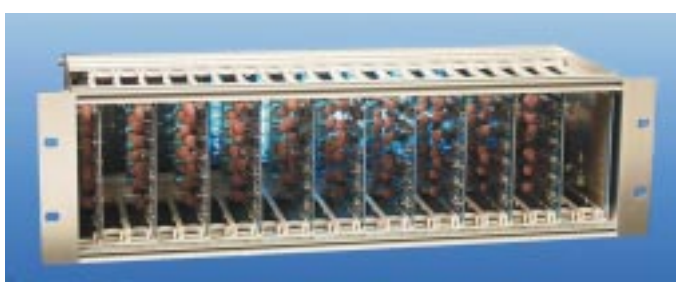
700 SERIES

The 700 Series features an array of components to satisfy standard and custom zone annunciation / bypass requirements at a very low cost. 700 Series processors can be added and interfaced to almost any control instrument panel including those with multiple zones, or employed as stand-alone proprietary systems. The eight zone processor boards can be combined for larger systems of up to 64 zones.
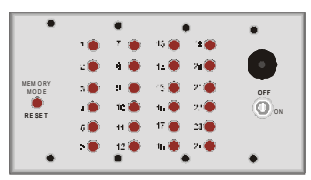
700-LT series control / display panels provide the user with system control and real-time status display at up to three remote locations. Violated zones are easily identified, and when unattended, a built-in memory feature "remembers" which zone or zones had a violation. Any number of zones can be independently bypassed and returned to normal from a remote panel by depressing a pushbutton. When bypassed, the LED lamp for that zone constantly flashes to alert monitoring personnel that the zone is out of service.

CS-60 SERIES ZONE ANNUNCIATOR

The CS-60 Series is designed for industrial applications and can monitor and annunciate the real time status of up to 60 sensor zones. The system features a standard 19" subrack enclosure with plug-in cards for each six zones. There is one normally open and one normally closed common output relay for all sensor zones, an audible sounder indicating a change of sensor zone status, a flashing LED whenever a sensor zone's status changes, and a pushbutton reset switch common to all sensor zones. Monitoring door status is a popular application for the CS-60 Series, however, almost any type of event can be monitored and the real-time status displayed on the display panel.
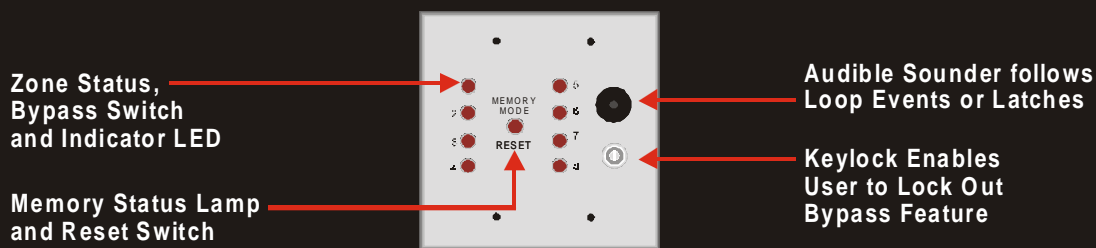
Annunciator Systems Main Features

	700 SERIES	CS-60 SERIES
LED LAMP FOR EACH ZONE	YES	YES
INDIVIDUAL ZONE BYPASS	YES	
INDIVIDUAL ZONE REMOTE BYPASS	YES	
OUTPUT RELAY COMMON TO ALL ZONES	YES	YES
INDIVIDUAL OUTPUT RELAY PER ZONE	YES	
PIEZO AUDIBLE	YES	YES
RESISTOR END-OF-LINE	YES	
RESISTOR END-OF-LINE FAULT ANNUNCIATOR	YES	

LT SERIES REMOTE DISPLAY / CONTROL PANELS

■ See your facility's total sensor status at a glance.
■ Bypass a zone merely by touching the LED lamp for that zone.

Zone Status, Bypass Switch and Indicator LED

Memory Status Lamp and Reset Switch

MEMORY MODE

RESET

Audible Sounder follows Loop Events or Latches

Keylock Enables User to Lock Out Bypass Feature
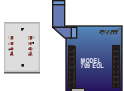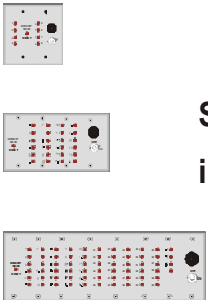
Custom Graphic Displays and Labeling

The following products comprise the 700 Series:

2

Description	Model
Processor Board for 8 Zones	701
Deluxe 8 Zone Remote Terminal	702
8 Zone Annunciator Panel (701 & 702 in cabinet)	703
8 Zone Resistor End-of-Line Module	705
8 Zone Voltage Output per Zone Module	707
8 Zone Contact Output per Zone Module	708
Resistor End-Of-Line and LED Annunciation	709
Retriggerable Audible Module	716
6" Flat Ribbon Cable	714
18" Flat Ribbon Cable	715
Metal Enclosures	718, 719, 720, 722
Series of 8, 16, 24, 32, 40, 48, 56 & 64 LED Panels including Piezo & Bypass Keyswitch	770-8LT 770-16LT 770-24LT 770-32LT 770-40LT 770-48LT 770-56LT 770-64LT

701 Processor
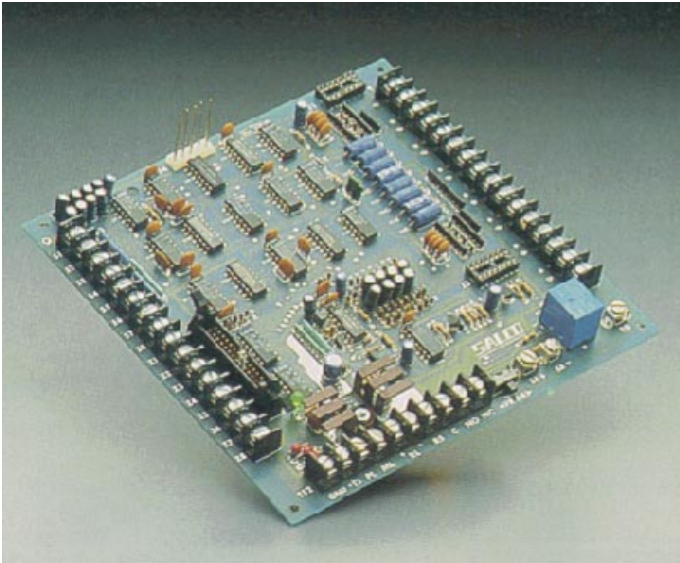
The model 701 processor board is an eight Zone Annunciator Expander with remote bypass capability. The 701 can be added to most existing alarm control instrument panels. One can determine immediately, by visual inspection, which protective zone has or has had an offense. Causes of false alarms due to swingers (intermittently faulty loop) can easily be isolated with built-in memory. For instance, the location of a door or window opening is easily determined by glancing at the illuminated LED.

The 701 processor board has four holes on the PC board to facilitate screw mounting into a steel cabinet. Double stick adhesive is also provided for convenience. The 701 Processor board has dimensions of 7 1/4" x 7 1/4" x 1 1/4" (18.42cm x 18.42cm x 3.18cm) and weighs 11 ounces.

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701 PROCESSOR BOARD WIRING
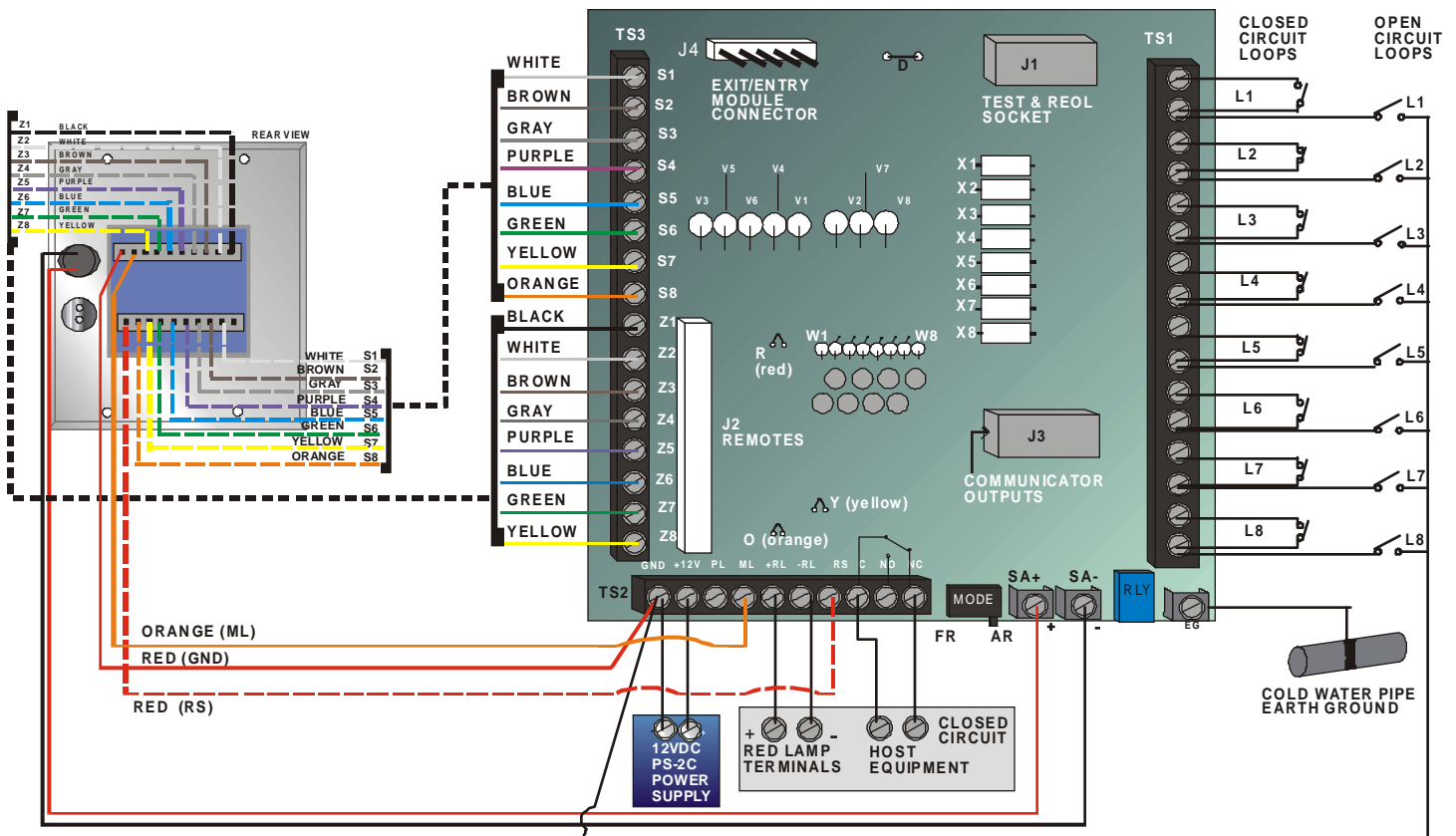
* WHEN USING OPEN CIRCUIT INPUT LOOPS, A JUMPER MUST BE WIRED ACROSS THE CLOSED CIRCUIT LOOP TERMINALS.

770-8LT REMOTE

701 PROCESSOR FEATURES

Built-In Output Relay Pulse Stretcher

An output loop pulse stretcher is incorporated in the 701 processor. Each zone can be programmed independently for an "instant" response of 20 milliseconds when using vibration contacts, window bugs, etc. A loop violation of 20 milliseconds, or longer, will cause an output relay change of state for approximately two seconds. This feature eliminates the added cost of purchasing expensive pulse stretchers per zone. To program for instant response, a 1 microfarad capacitor lead labeled X1, X2, X3, X4, X5, X6, X7, X8 is cut.

2

Remote Bypass

Any zone can be bypassed, or unbypassed, by depressing that zone's pushbutton on the remote LT series panel. Once bypassed, activity on that loop does not affect zone annunciator action or cause an alarm. A flashing LED on the LED panel indicates to the user the zone has been bypassed. A keylock switch which is used to prevent unauthorized persons from bypassing is also on the remote LED panel.

Any number of zones can be bypassed at any time with no affect on the remaining zones. An advantage of remote bypassing capability is that multiple bypass locations are possible by simply wiring in parallel additional LED and switch plates to the 701 processor board. Each time a zone is bypassed or unbypassed the output relay changes state for approximately two seconds, or more, realizing zone bypassing supervision. Zone bypassing supervision prevents the possibility of an unauthorized bypass or unbypass when the control processor is armed thus causing an alarm condition. Should the user desire No Alarm on bypassing, diodes labeled V1, V2, V3, V4, V5, V6, V7, V8 for each zone is cut.

Output Relay Contacts Common to all Zones

The 701 Processor board provides relay contact outputs (SPDT), common to all zones. The normally closed output contacts are supervised in that if power to the 701 processor fails the normally closed contacts open. The output relay contacts are rated for a maximum of 2 amperes at 28 Volts DC.

Output Relay Contact "Always Follow the Loop" per Zone Option

The 701 Processor board comes from the factory programmed so the output relay contacts always follow the loop activity. If a loop is violated, the output relay contacts change state and remain in the changed state until the loop is restored. Or, if the loop is violated only momentarily, say for 3/4 second, the output relay contacts will change state for about 2 seconds then restore due to the built-in pulse stretcher.

Momentary Output Relay Contacts

Individual zones can be programmed to provide a momentary output relay change of state for each zone violation. To select this option a diode is cut. If a loop is violated and remains violated, the common output relay changes state for two seconds then restores.

Latching Common Output Relay Contacts Option on Zone Violations

The 701 Processor board comes from the factory with the output relay state always following the protective loop violations. Option Y (yellow jumper wire) has been connected at the factory and consequently the common output relay will not latch. If relay latching is desired, the yellow option wire Y is cut and all zones will latch. Once a zone latches, the output relay can only be manually reset with the pushbutton reset switch provided the zone has restored.

Audible Piezo Driver Outputs

The 701 processor can drive three sound piezo audibles with the following two options:
1. When a loop is violated, the piezo sound device latches. Depressing the RESET switch resets the piezo sound device even if the loop remains violated thus allowing for subsequent loop violations to generate a sound alert.
2. The piezo sound device follows the loop. Also the audible piezo accomodates the retriggerable audible control module model 716 which enables the audible piezo to sound on a loop violation and on a loop restoral.

Remote Bypassing

- Manual Pushbutton switch per zone.
- Flashing LED's when zones are bypassed
- Supervised bypassing, i.e., alarm upon bypassing and unbypassing when control is armed.
- Option enables no alarm on bypass and unbypass.
- Keylock bypass interlock available on 770 standard remote.

Eight Protective Loops

- Use on closed or open circuit loops.
- Loop hesitation per zone - 1/2 second.
- Programmable instant response 20 milliseconds.
- Built-in pulse stretcher per zone.
- End-of-line Resistor loop accessory model 705 available as a plug-in option.
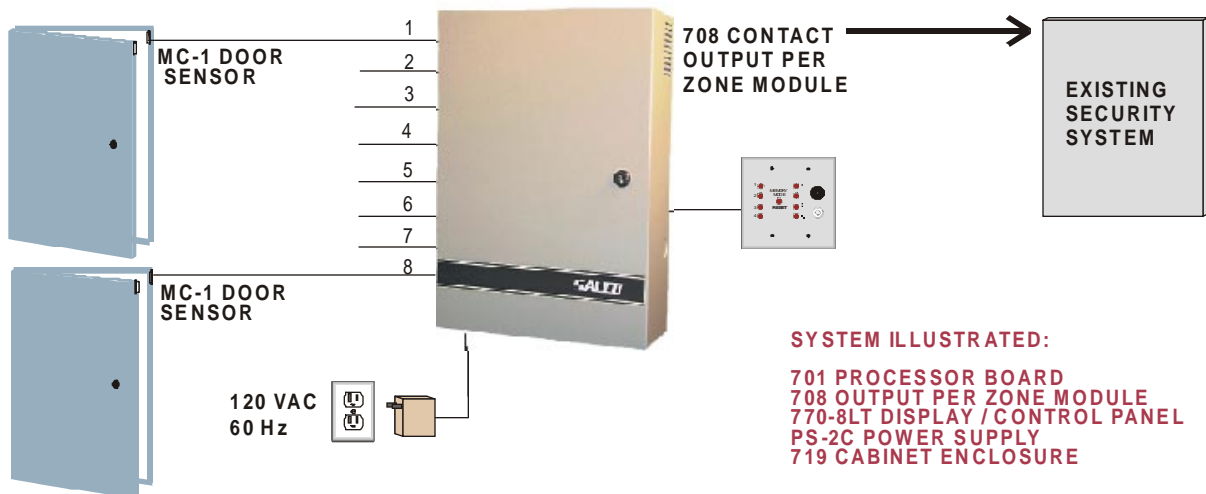- Supervised End-of-Line resistor loop and LED fault annunciation Model 709 available as an option.

Memory

- Automatically goes into memory mode when associated control processor is armed and remains in the memory mode when disarmed. RL terminals on the processor board are used for this function.
- AR-FR slide switch chooses between AR Auto/Reset mode or FR memory mode.

LED Driver Outputs

- LED driver outputs drive a maximum of three eight zone LED remote stations.

700 SERIES ZONE ANNUNCIATOR SYSTEM EIGHT ZONE APPLICATION

MC-1 DOOR SENSOR

1
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4
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7
8

708 CONTACT OUTPUT PER ZONE MODULE

EXISTING SECURITY SYSTEM

MC-1 DOOR SENSOR

120 VAC 60 Hz

SYSTEM ILLUSTRATED:

701 PROCESSOR BOARD
708 OUTPUT PER ZONE MODULE
770-8LT DISPLAY / CONTROL PANEL
PS-2C POWER SUPPLY
719 CABINET ENCLOSURE

DISPLAYS AND CONTROL OPTIONS

1 5
2 6
3 7
4 8

709 FAULT ANNUNCIATOR

MEMORY MODE RESET

770-8LT

GD-1000 GRAPHIC DISPLAY

702

BACK DOOR   LAB DOOR
STORAGE DOOR   NORTH DOOR
OVERHEAD 1   FIRE DOOR
OVERHEAD 2   SAFE DOOR

LT-1000 CUSTOM LABELING

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702 Deluxe Remote Terminal
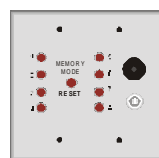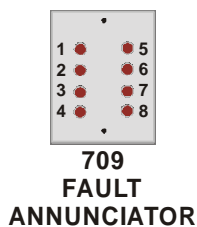
702 Annunciator Features:

■ Attractive flush mounted terminal.

■ LED per zone, Memory mode LED, Power ON LED.

■ Pushbutton Bypass Switch per Zone and common Reset Switch.

■ Entry Alert Piezo Device.

■ Connect with Flat Ribbon or 22 conductor Cable.

■ Terminals to parallel a piezo device.

■ Bypass Interlock Terminal.

The 702 Deluxe Remote Terminal is a flush mounted remote annunciator with eight zone LED's and eight bypass pushbutton switches, a memory mode LED, and a Power On LED. Any zone can be bypassed with the individual non-locking pushbuttons on the 702 terminal. When bypassed the LED for that zone flashes to inform the user that the zone is out of the system. Up to three 702 remote terminals can be connected in parallel. The terminal dimensions are 7.9" x 5.9" x 1.4" (20cm x 15cm x 3.5cm). Each remote terminal comes complete with hardware for flush mounting (22 conductors required).

703 Eight Zone Annunciator

Applications:
Guard Stations
Warehouses
Schools
Department Stores
Museums
Nursing Homes
Hospitals, etc.

The 703 eight zone Annunciator Panel comprises the 701 Processor board, the 702 Deluxe Remote Panel, and the 719 Metal Enclosure. The 703 functions as an eight zone audible and visual annunciator system with LED annunciation, bypassing capability, and reset capability, all located on the front display panel. Additional remote stations can be added for more flexibility. The 703 can interface with most existing control instrument panels. The physical dimensions are 15 1/2" x 11" x 4 1/2" (39.4cm x 28cm x 11.4cm).

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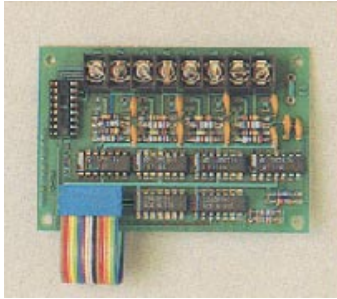
705 Resistor End-of-Line Features

■ Converts simple protective loops of the 701 Processor Board to 1000 ohm resistor end-of-line loops.

■ Plugs into jack J2 on 701 Processor Board.

The 705 resistor End-Of-Line module converts the simple protective loops of the 701 Processor to a Resistor End-of-Line loop for all eight zones. The physical dimensions are 3 3/4" x 2 9/16" x 1/2" (9.5cm x 6.51cm x 1.27cm). Each 705 module comes complete with a 714 flat ribbon cable.

705 Resistor End-Of-Line
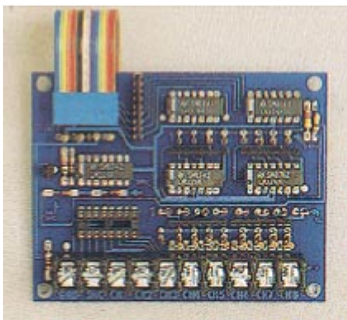
707 Voltage Output per Zone Features

■ Output Voltage can follow Loop Violation and Restoral.

■ Output Voltage can latch.

■ Voltage Output per Zone only when Control Instrument is ARMED.

■ 24 Hour Trigger on any zone (Link Optional)

The 707 Voltage Output per Zone module provides an output voltage per offending zone for triggering digital communicators or other general purpose devices. The physical dimensions are 2 1/2 " x 3 3/4" x 1/2" (6.35cm x 9.53cm x 1.27cm). Each 707 module comes complete with a 714 flat ribbon cable. Inserts into jack J3 on 701.

707 Voltage Output per Zone

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708 Contact Output per Zone
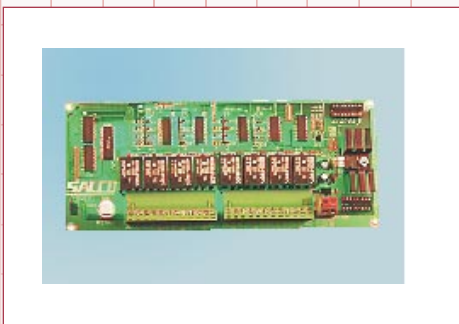
708 Contact Output per Zone Module

- All the features of the model 707 but with contact output per Zone.

- SPDT 2 amp 24 volt DC relay contacts per zone.

- Plugs into jack J3 on 701 Processor Board.

The 708 module provides a single pole double throw (SPDT) dry relay contact per offending zone capable of supporting 2 amps at 24 volts DC. The physical dimensions are 8.4" x 3.6" x 1.25" (21.34cm x 9.14cm x 3.18cm). Each module comes complete with a 714 Flat Ribbon Cable.

709 End-Of-Line Fault System
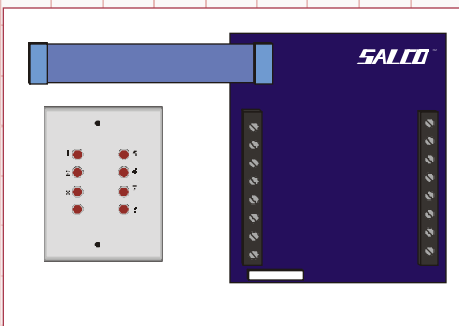
709 Resistor End-of-Line Fault System

The 709 Resistor End-of-Line (EOL) system comprises a 709 module, an eight zone end-of-line fault indicator panel, a flat ribbon cable six inches long, and eight EOL resistors. The EOL fault indicator LED panel is made of a single gang brushed stainless steel plate. The EOL fault indicator LED's illuminate and remain illuminated whenever there exists a fault on a protective loop. A loop fault is defined as an open loop to the 701 processor board. Loop sensors are normally open contacts. A loop violation is defined by a closed sensor contact. Therefore, loop violations are displayed on the standard 770-LT series of annunciator panels and loop faults are displayed on the EOL fault indicator panel. The 709 module and display panel are powered by the 5 Volts DC from the 701 processor board. Physical dimensions of the 709 module are 3.75" x 3.75" x 1" (9.52cm x 9.52cm x 2.54cm).

716 Audible Control
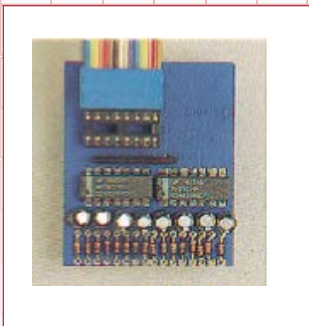
716 Retriggerable Audible Control

The 716 module enables the audible to latch on a loop violation and latch on a loop restoral. For both a loop violation or a loop restoral, the audible will sound until the reset switch is depressed momentarily. The physical dimensions are 1.8" x 1.8" x 1/2" (4.57cm x 4.57cm x 1.27cm). Ideal for guard stations. Each 716 module comes complete with a 714 flat ribbon cable.
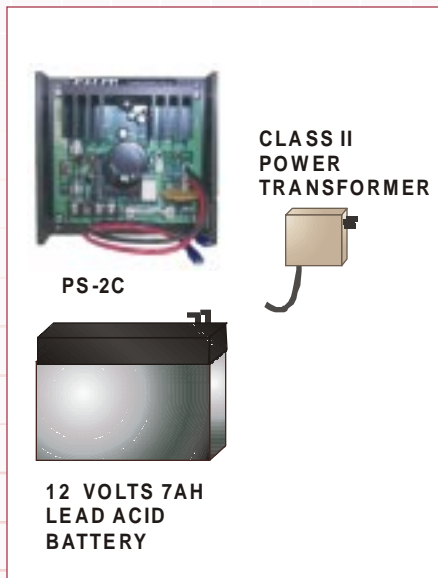
PS-2C Uninterruptible Power Supply
13.7 Volts DC 2.0 Amps

CLASS II POWER TRANSFORMER

PS-2C

12 VOLTS 7AH LEAD ACID BATTERY

The PS-2C is an uninterruptible power supply with a Class 2 Power Transformer which inserts into an 120 Volt 60 Hz electric utility receptacle, and a 7 Ampere-Hour Rechargeable Lead-Acid Battery. The power supply can deliver a maximum continuous current of 2.0 amps at 13.7 volts DC. The output of the PS-2C is a clean smooth continuous DC power which can be used to power most sensitive electronic systems. The battery leads present a voltage of 13.7 volts to charge the 7 Ampere-Hour battery and to present a precise constant float voltage to the battery when fully charged. During a loss of AC power a normally closed relay contact opens, and the battery can supply a maximum of 4 amps surge on demand. Battery backup time is a function of the amount of current drawn.

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PS-2C Power Supply

PS-2C Power Supply

- 13.7 Volts DC 2.0 Amps Continuous Output
- Regulated Output Voltage
- Low Output Ripple Voltage
- AC Power Failure Output Relay Contacts

- Output Overload LED Indicator
- Output Voltage Short Circuit Protection
- Thermal Overload Protection
- Output and Fault Fuse LED Indicator
- Lightning and Surge Protection
- Battery Charging Current Limiter

Power Transformer

- Class 2 - 50VA 16.5 Volts Secondary
- LED AC LED indicator
- Internal Fuse
- Earth Ground Terminal

Back-Up Battery

- Lead Acid 7 Ampere Hour

714 Cable

The 714 flat ribbon cable measures 6" and is used to connect the 701 processor board to any of the 700 Series optional plug-in boards.

715 Cable

The 715 flat ribbon cable measures 18" in length and is used to connect the 701 processor board to any one of the 700 Series optional plug-in boards.

Keylock Cabinet Enclosures

The beige colored multi-purpose cabinets are made of 18 gauge steel and have ventilation slots. The door has piano-type hinges and a keylock.

718	CABINET DIMENSIONS	11" X 11" X 3.5"
719	CABINET DIMENSIONS	18.25" X 12.25" X 4.37"
720	CABINET DIMENSIONS	19" X 19" X 4.25"
722	CABINET DIMENSIONS	32.25" X 19.20" X 4.30"

2

■ See your facility's total sensor status at a glance. Bypass a zone merely by touching the LED lamp for that zone.

Zone Status LED, Bypass Switch and Indicator LED

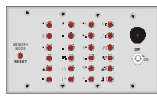Audible Sounder follows Loop Events or Latches
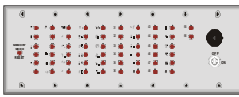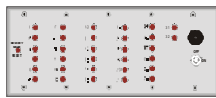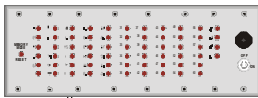
Memory Lamp and Reset Switch
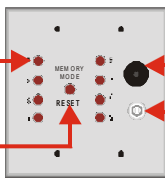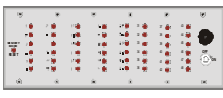
Keylock Bypass Interlock Enables User to Lock Out Bypass Feature

LT Series Features

■ Solid state lamps.
■ Piezo audible sounder.
■ Bypass inhibit keyswitch.
■ Tactile feedback pushbuttons.
■ Brushed stainless steel plate.
■ Color coded wires.

LT series remote display / bypass panels have a combination pushbutton switch / LED lamp for each zone, a piezo, a keyswitch and a reset LED lamp / pushbutton switch all mounted on a stainless steel plate. When a door opens and remains open, it's LED lamp illuminates, extinguishing when the door is closed. The LED / pushbutton switch is used to bypass a zone, when bypassed the LED flashes indicating the door is out of service. The keyswitch is used to prevent unauthorized bypassing. The audible piezo sounds when a door opens and remains sounding until the door is closed. A mode is possible where when a door opens and closes again, the lamp remains illuminated and the piezo sounds until both are manually reset. When reset, the lamp indicates the true state of the door.

Model	Size	Zones	Conductors
770-8LT	4.63 X 4.50	8 ZONES	21 CONDUCTORS
770-40LT	11.75 X 4.50	40 ZONES	85 CONDUCTORS
770-16LT	6.38 X 4.50	16 ZONES	37 CONDUCTORS
770-48LT	11.75 X 4.50	48 ZONES	101 CONDUCTORS
770-24LT	8.25 X 4.50	24 ZONES	53 CONDUCTORS
770-56LT	13.63 X 4.50	56 ZONES	117 CONDUCTORS
770-32LT	10.0 X 4.50	32 ZONES	69 CONDUCTORS
770-64LT	15.50 X 4.50	64 ZONES	133 CONDUCTORS

CUSTOM LABELING
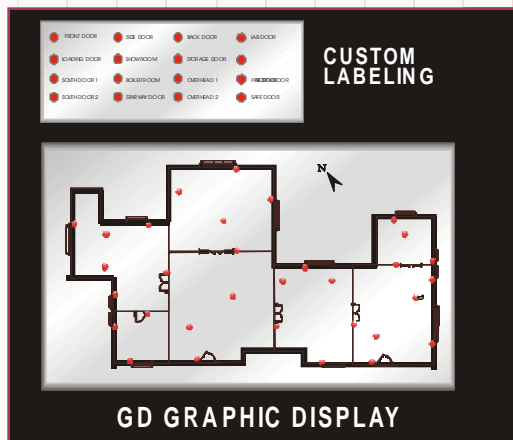
GD GRAPHIC DISPLAY

Custom Graphic Displays

See your facility's total sensor status at a glance with our LT type custom graphic displays. Bypass a zone merely by touching the LED lamp for that zone. Submit an exact camera ready print of your facility layout and our custom department will fabricate an exact copy of the print submitted onto a brushed aluminum panel. Custom labeling is also available.

2

2 CONDUCTOR #22 AWG — 22 CONDUCTOR #22 AWG

OPTIONAL: 1 OR 2 ADDITIONAL PANELS

770-8LT

ANY SENSORS WITH NORMALLY OPEN OR NORMALLY CLOSED CONTACTS

UP TO 8 ZONES

1	701 PROCESSOR
1	770-8LT PANEL
1	PS-2C POWER SUPPLY
1	719 CABINET

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2 CONDUCTOR #22 AWG — 38 CONDUCTOR #22 AWG

OPTIONAL: 1 OR 2 ADDITIONAL PANELS

770-16LT

ANY SENSORS WITH NORMALLY OPEN OR NORMALLY CLOSED CONTACTS

UP TO 16 ZONES

2	701 PROCESSORS
1	770-16LT PANEL
1	PS-2C POWER SUPPLY
1	719 CABINET

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2 CONDUCTOR #22 AWG — 54 CONDUCTOR #22 AWG

OPTIONAL: 1 OR 2 ADDITIONAL PANELS

770-24LT

ANY SENSORS WITH OR NORMALLY CLOSED CONTACTS

UP TO 24 ZONES

3	701 PROCESSORS
1	770-24LT PANEL
1	PS-2C POWER SUPPLY
1	720 CABINET

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2 CONDUCTOR #22 AWG — 70 CONDUCTOR #22 AWG

OPTIONAL: 1 OR 2 ADDITIONAL PANELS

770-32LT

* MUST USE PS-4 POWER SUPPLY

ANY SENSORS WITH NORMALLY OPEN OR NORMALLY CLOSED CONTACTS

UP TO 32 ZONES

4	701 PROCESSORS
1	770-32LT PANEL
1	PS-2C POWER SUPPLY
1	720 CABINET
1	718 CABINET

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2 CONDUCTOR #22 AWG — 86 CONDUCTOR #22 AWG

OPTIONAL: 1 OR 2 ADDITIONAL PANELS

770-40LT

* MUST USE PS-4 POWER SUPPLY

ANY SENSORS WITH NORMALLY OPEN OR NORMALLY CLOSED CONTACTS

UP TO 40 ZONES

5	701 PROCESSORS
1	770-40LT PANEL
1	PS-2C POWER SUPPLY
1	719 CABINET
1	720 CABINET

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2 CONDUCTOR #22 AWG — 102 CONDUCTOR #22 AWG

OPTIONAL: 1 OR 2 ADDITIONAL PANELS

770-48LT

* MUST USE PS-4 POWER SUPPLY

ANY SENSORS WITH NORMALLY OPEN OR NORMALLY CLOSED CONTACTS

UP TO 48 ZONES

6	701 PROCESSORS
1	770-48LT PANEL
1	PS-2C POWER SUPPLY
1	722 CABINET

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2 CONDUCTOR #22 AWG — 118 CONDUCTOR #22 AWG

OPTIONAL: 1 OR 2 ADDITIONAL PANELS

770-56LT

* MUST USE PS-4 POWER SUPPLY

ANY SENSORS WITH NORMALLY OPEN OR NORMALLY CLOSED CONTACTS

UP TO 56 ZONES

7	701 PROCESSORS
1	770-56LT PANEL
1	PS-2C POWER SUPPLY
1	722 CABINET
1	718 CABINET

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2 CONDUCTOR #22 AWG — 134 CONDUCTOR #22 AWG

OPTIONAL: 1 OR 2 ADDITIONAL PANELS
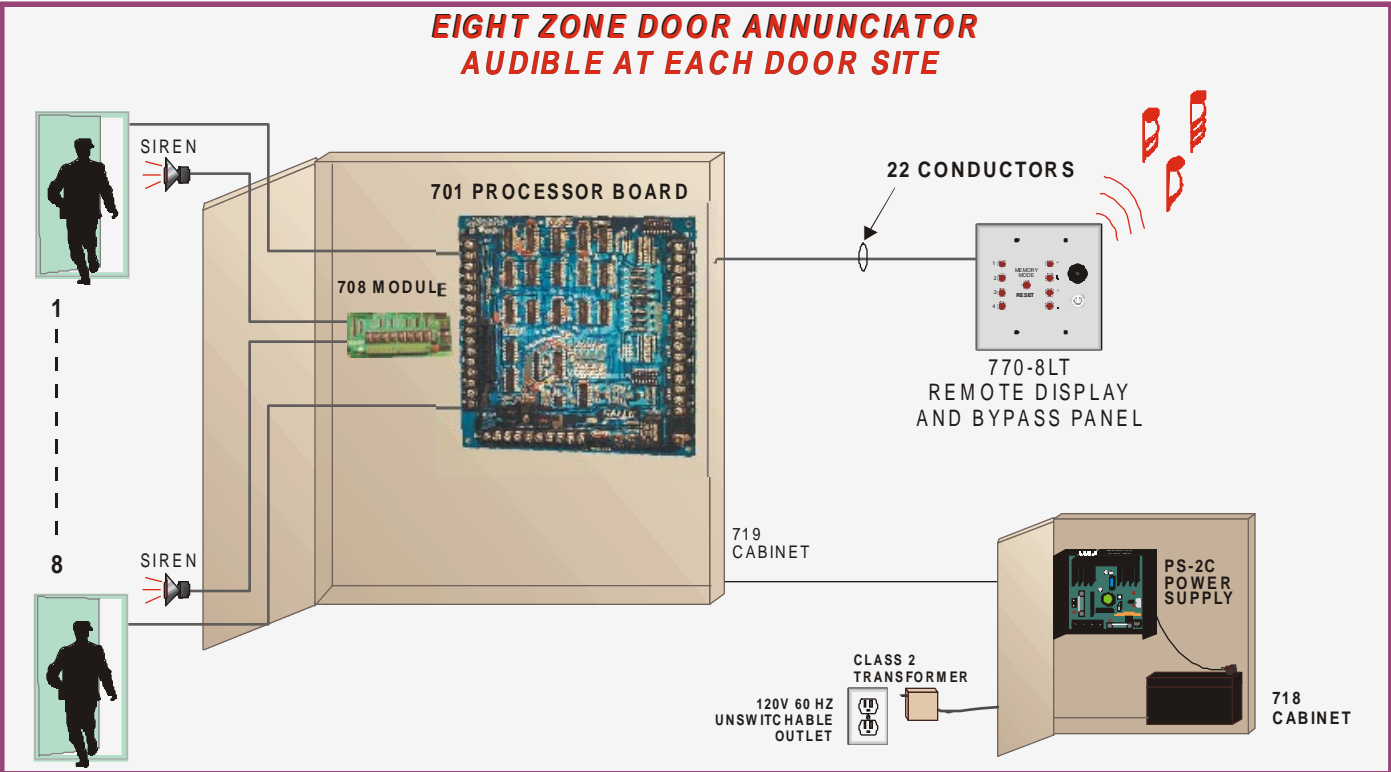
770-64LT

* MUST USE PS-4 POWER SUPPLY

ANY SENSORS WITH NORMALLY OPEN OR NORMALLY CLOSED CONTACTS

UP TO 64 ZONES

8	701 PROCESSORS
1	770-64LT PANEL
1	PS-2C POWER SUPPLY
1	722 CABINETS
1	718 CABINET

EIGHT ZONE DOOR ANNUNCIATOR
AUDIBLE AT EACH DOOR SITE

System General Description

The eight zone door annunciator system with remote bypass comprises the 701 processor board, the PS-2C power supply, the 770-8LT remote display / bypass panel, the 708 contact output per zone module and 718 and 719 cabinets. The 701 processor board is wired directly to doors employing either normally open or normally closed door contacts. The two conductors to each door switch should be 24 gauge AWG or heavier, and the total resistance per protective loop should never exceed 250 ohms. The output of the 701 processor board is wired directly to the 770-8LT remote display and bypass panel employing 22 conductors with 22 gauge AWG or heavier, and the total length of the 22 conductor cable should be no more than 200 feet. The 719 cabinet houses the 701 processor board and the 708 module, and the 718 cabinet houses the PS-2C power supply board and the 7 ampere-hour battery.

708 Contact Output per Zone Module

The 708 provides a relay contact per door zone. When a door opens a relay contact closes which can be used to supply low voltage to a siren driver located at each door site. Therefore, only the siren at a door which opens will sound. When the door closes the sound will stop. A separate power supply must be used to power the door sirens. DO NOT connect sirens to the PS-2C power supply which is supplying power to the 701.

System Components:

1	*701 Processor Board*
1	*770-8LT Remote Display*
1	*PS-2C Power Supply*
1	*708 Contact Output per Zone Module*
1	*718 Cabinet*
1	*719 Cabinet*

SIXTEEN ZONE ANNUNCIATOR SYSTEM FOR HOTEL ROOMS
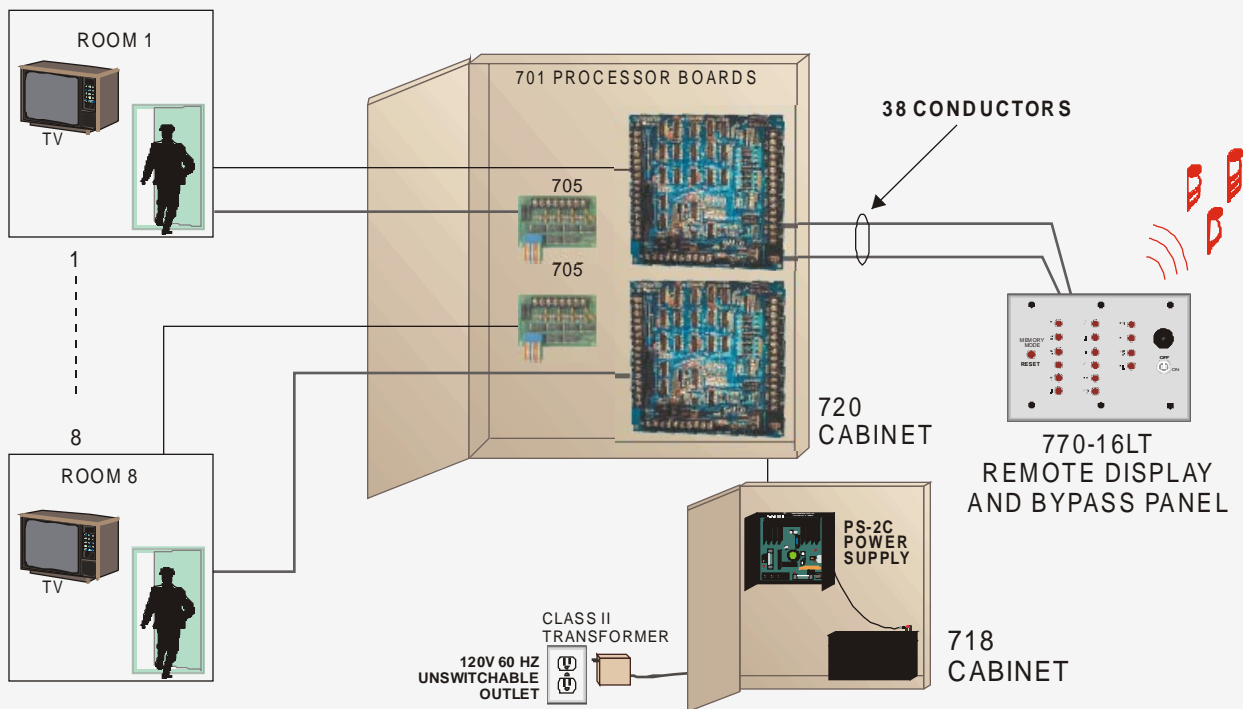
System General Description for Sixteen Zones - Eight Doors and Eight TV Sets

The sixteen zone annunciator system with remote bypass, comprises two 701 processor boards, a PS-2C power supply, a 770-16LT remote display and bypass panel, two 705 end-of-line resistor modules, 718 and 720 cabinets. Eight zones of the 701 processor boards are wired directly to eight doors employing normally open contacts. The two conductors to each door switch should be 24 gauge AWG or heavier, and the total resistance per protective loop should never exceed 250 ohms. Eight zones of the 705 end-of-line resistor are wired directly to eight TV sets with a terminating resistor. The outputs of both 701 processor boards are wired directly to the 770-16LT remote display and bypass panel employing 38 conductors with 22 gauge AWG or heavier, and the total length of the 38 conductor cable should be no more than 200 feet.

705 Resistor End-of-Line Modules
Eight zones of the 705 module are connected to eight TV sets end-of-line resistor and eight zones are connected to the door contacts which all terminate on the 701 processor boards.

The 720 cabinet can house two 701 processor boards and two 705 End-of-Line Resistor boards, the PS-2C power supply board and the 7 ampere-hour battery are housed in the 718 cabinet.

System Components:

2	701 Processor Boarda
1	770-16LT Remote Display
1	PS-2C Power Supply
2	705 End-of-Line Resistor Modules
1	718 Cabinet
1	720 Cabinet

3

**EIGHT ZONE DOOR ANNUNCIATOR
WITH INDIVIDUAL OUTPUT RELAY CONTACT PER ZONE
FOR CCTV CAMERA CONTROL**

701 PROCESSOR BOARD

1

8

CCTV CAMERA #1

1
2

8

708
MODULE

CCTV CAMERA #2

PS-2C
POWER
SUPPLY

CCTV CAMERA #8

7AH
BATTERY

719
CABINET

120V 60HZ
UNSWITCHABLE
OUTLET

CLASS II
TRANSFORMER
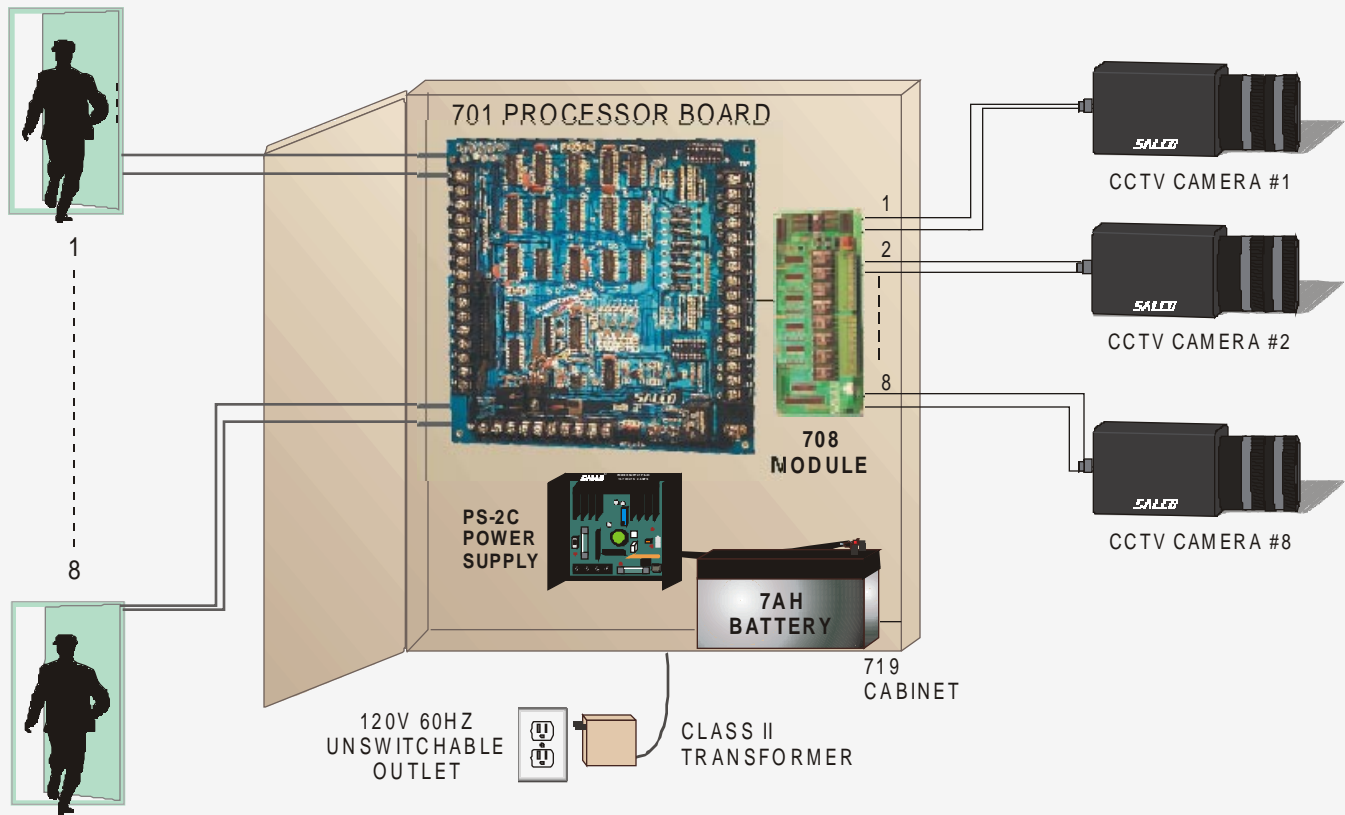
System General Description

The eight zone door annunciator with individual output relay contact per zone for CCTV camera control comprises the 701 processor board, the PS-2C power supply, the 708 contact per zone module, and the 719 cabinet. The 701 processor is wired directly to door or other type sensors employing either normally open or normally closed door contacts. The two conductors to each door sensor switch should be 24 gauge AWG or heavier, and the total resistance per protective loop should never exceed 250 ohms. When a door opens a relay contact closes which can be used to activate its respective CCTV camera. Therefore, only the CCTV at a door which opens will activate.   The cabinet houses the 701 processor board, the 708 module, the PS-2C power supply board, and the 7 ampere-hour battery.

System Components:

1   *701 Processor Board*
1   *PS-2C Power Supply*
1   *708 Contact Output per Zone Module*
1   *719 Cabinet*

RESISTOR END-OF-LINE FAULT ANNUNCIATOR FOR HIGH SECURITY APPLICATIONS - EIGHT ZONES
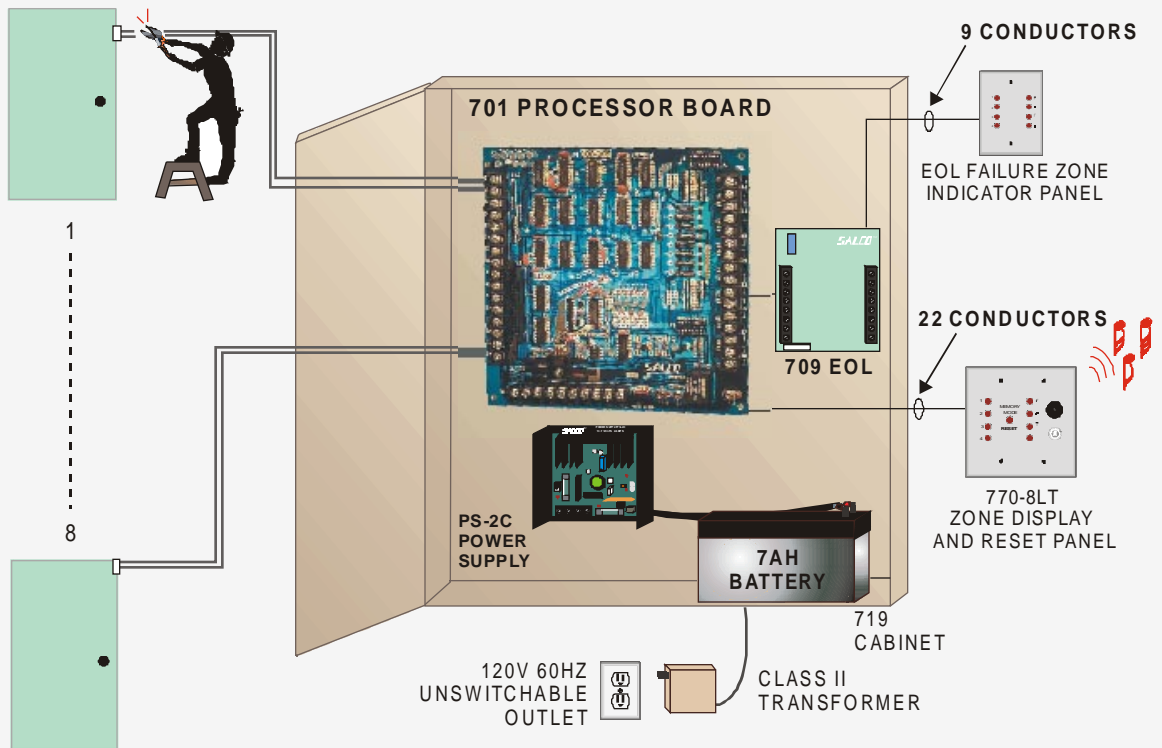
The resistor end-of-line fault annunciator for high security applications comprises the 701 processor board, the PS-2C power supply, the 709 board, the EOL failure indicator panel, the 770-8LT zone display and reset panel, and the 719 cabinet.   The 701 processor is wired directly to door or other type sensors employing normally open door contacts. The two conductors to each door sensor switch is terminated with and end-of-line resistor and should be 24 gauge AWG or heavier, and the total resistance per protective loop should never exceed 100 ohms.   The 719 cabinet houses the 701 processor board, the 709 board, the PS-2C power supply board, and the 7 ampere-hour battery.

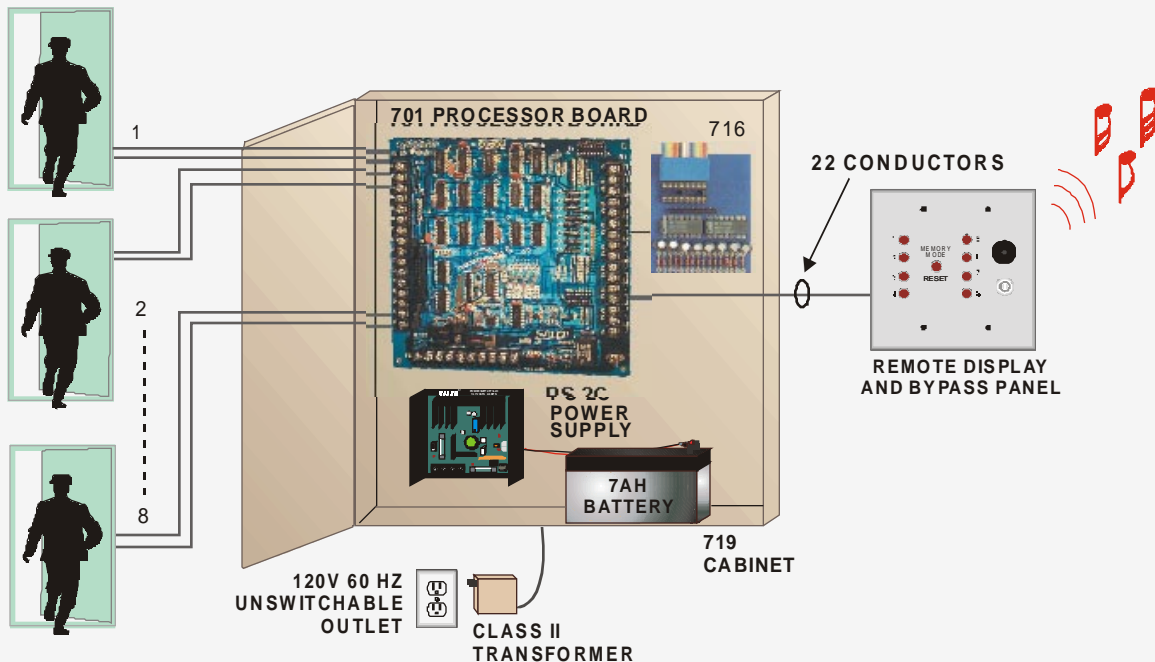<u>EOL Failure Indicator Panel and Zone Display and Reset Panel.</u>

The EOL failure indicator panel lamps illuminate and remain illuminated whenever there is a fault on a protective loop. A loop fault is defined as an open loop such as when the loop is cut. The zone display panel indicates the status of the sensors connected to the protective loops. Normally open sensor contacts are used and a violation is defined when a contact is closed. Therefore, loop violations and restorals are displayed on the 770-8LT zone display and reset panel, and loop faults are displayed on the end-of-line failure indicator panel.

System Components:

1   701 Processor Board
1   770-8LT Remote Display
1   PS-2C Power Supply
1   709 System (includes 709 board and EOL failure zone indicator panel)
1   719 Cabinet

RETRIGGERABLE AUDIBLE SOUND AND LAMP DISPLAY
WITH MANUAL RESET - EIGHT ZONES

**UP TO EIGHT DOORS, WINDOWS
OR ANY END USER CONTACT SENSORS**

701 PROCESSOR BOARD 716

1

2

8

22 CONDUCTORS

**REMOTE DISPLAY
AND BYPASS PANEL**

**PS 2C
POWER
SUPPLY**

**7AH
BATTERY**

**719
CABINET**

**120V 60 HZ
UNSWITCHABLE
OUTLET**

**CLASS II
TRANSFORMER**

The retriggerable system comprises the 701 processor board, the PS-2C power supply, the 716 board, the 770-8LT remote display, and the 719 cabinet. The 701 processor board is wired directly to doors, showcases, gun racks, or other applications, employing normally open or normally closed sensor contacts. The two conductors to each sensor should be 24 gauge AWG or heavier, and the total resistance per protective loop should never exceed 250 ohms. The cabinet houses the 701 processor board, the 716 board, the PS-2C power supply board, and the 7 ampere-hour battery.

On any sensor event, violation or restoral, the audible will sound and remain sounding until manually reset. For example, when a door opens, the audible sounds and remains sounding, and the LED lamp for that sensor illuminates and remains illuminated, until the system is manually reset. After reset, the lamp indicates the true status of the door sensor, if the door is still open the LED lamp will be illuminated. When the door is closed the LED lamp will be extinguished and the audible will once again sound until manually reset. Also, after reset, when the door closes, the audible sounds and remains sounding and the LED lamp will extinguish.
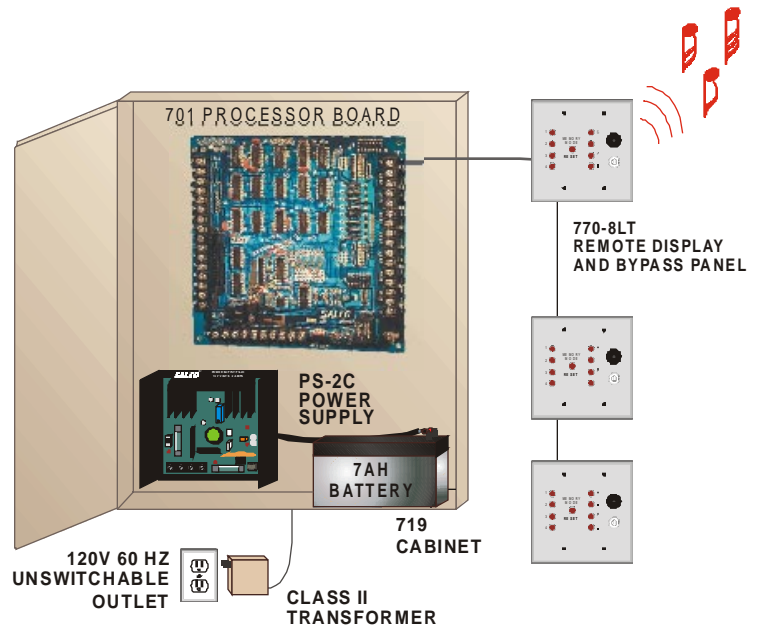
System Components:

1   701 Processor Board
1   770-8LT Remote Display
1   PS-2C Power Supply
1   716 Retriggerable Audible Control
1   719 Cabinet

CLINIC STATUS SYSTEM
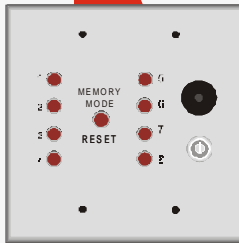
3

The Clinic Status System annunciates when a professional is with a patient, using annunciator panels in each room. When a pushbutton is depressed, a lamp illuminates flashing on all the panels in the system. When the professional is subsequently free, the same pushbutton is depressed and the flashing LED stops flashing on all the panels. The information broadcast can be made completely silent or audible. Many other operational uses are possible to broadcast information to all appropriate rooms in the facility. The System comprises the 701 processor board, the PS-2C power supply and up to three 770-8LT standard panels or custom made stainless steel panels for your specific application. Consult the factory for your specific requirements.

701 PROCESSOR BOARD

PS-2C
POWER
SUPPLY

7AH
BATTERY

719
CABINET

770-8LT
REMOTE DISPLAY
AND BYPASS PANEL

120V 60 HZ
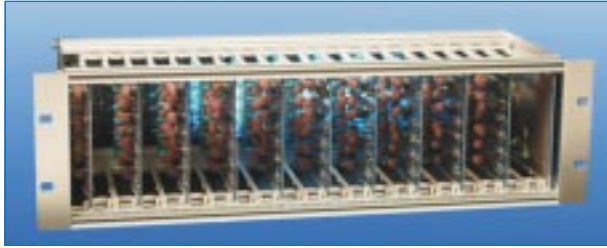UNSWITCHABLE
OUTLET

CLASS II
TRANSFORMER

System Components:

1   701 Processor Board
3   770-8LT Remote Displays
1   PS-2C Power Supply
1   719 Cabinet

CS-60 SERIES

CS-60 MULTI-ZONE ANNUNCIATOR

The semi-custom CS-60 system is a cost-effective solution to multiple zone annunciation, and was specifically designed for industrial applications such as warehouses, hotels, schools, healthcare facilities, etc. The system can monitor any number of protective loops from 6 to 60.

For each 6 zones monitored a plug-in card is inserted into a 19" rack. All loops are terminated on the back plane of the rack. A remote LED panel display has 6 to 60 LED's depending on the number of zones in the application. Common output normally open and normally closed contacts can interface with an existing host system.

OPERATION

Upon a loop violation - a door opens for example - the LED lamp for that door constantly flashes and a piezo audible constantly sounds. A common pushbutton reset switch silences the audible and places the violated zone in the auto-reset mode yielding the true status of the violated zone. As long as the zone is violated the LED lamp for that zone remains illuminated. The next zone which becomes violated can be immediately identified with its flashing LED and the audible sounding to attract attention. Previously violated zones will have their LED's illuminated indicating their doors are still open. When a door closes again - a zone is restored - the LED for that zone flashes, and the audible sounds. By depressing the Reset switch, the flashing LED will extinguish indicating that the zone is now restored.

4

FEATURES

- Closed or Open Protective Loops.
- Pushbutton Reset for Loop Status.
- One Common control plug-in card.
- 6.8 - 14 Volts DC Operation.
- Remote standard LED display Model RP-60 mounted on 7 gang stainless steel plate.
- Plug-in 6 zone circuit cards (PC6) for modular plug-in zone expansions (Max 10 per rack).
- Flashing LED Memory and audible upon violation.
- Standard 19" Rack ANSI / EIA RS-310-C.
- High Density Screw Terminal Backplate.
- Optional 19" cabinet enclosure available.
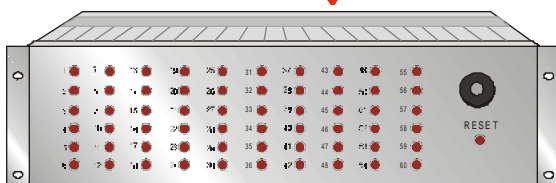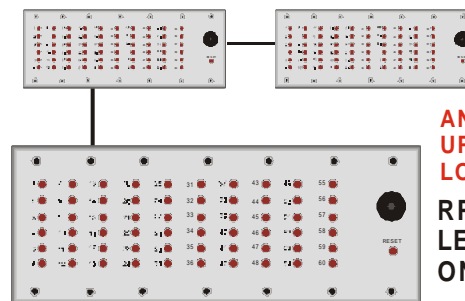
CS-60 REAR VIEW SHOWING BACKPLANE
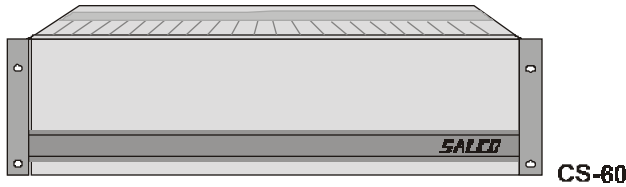
CS-60

TO
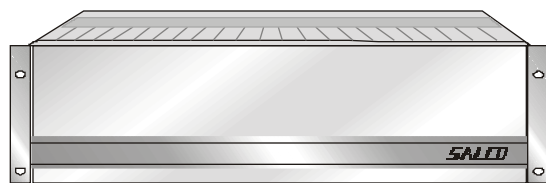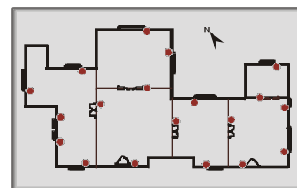
CUSTOM GRAPHIC DISPLAY

OR TO   **OR TO**

ANNUNCIATE AT UP TO 3 REMOTE LOCATIONS!

RP-60 REMOTE LED PANEL ON 7 GANG PLATE

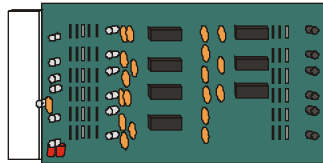**RP-60RM   19" RACK AND LED PANEL**
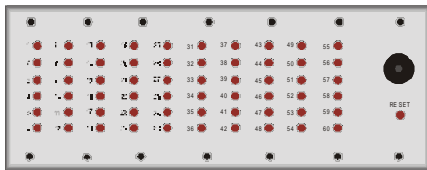
CS SERIES SYSTEM COMPONENTS

CS-60

CS-60 REAR VIEW
SHOWING BACKPLANE
AND 19" RACK FOR 60 ZONES
LOOPS AND LED TERMINATIONS

Enclosure: Standard Rack ANSI / EIA RS-310-C
Size: 19" x 7 3/4" x 5 1/4" (including backplane) and common control card.

PC-6 PLUG IN CARD
6 ZONES EACH INSERTS
INTO THE CS-60 19" RACK

4

ANNUNCIATE UP TO 3 REMOTE LOCATIONS!

RP-60 60 ZONE ANNUNCIATOR LED PANEL ON 7 GANG PLATE

The RP-60 display panel can be the standard 60 zone LED panel or a custom made LED panel for your specific application. The LED's, piezo, and reset pushbutton switch are mounted on a 7 gang stainless steel plate.
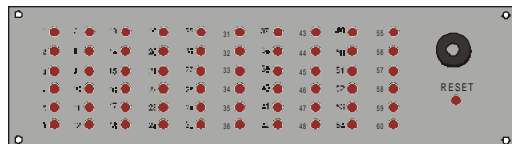
RP-60RM   LED PANEL 60 ZONES FOR 19" RACK

The RP-60RM LED panel mounts in a standard 19" rack. 60 LED's, a piezo, and pushbutton switch are mounted on an aluminum panel. Custom made LED panels for fewer zones are available for your specific applications. Physical dimensions are: 16.75" x 5.25" x 0.25" (42.55cm x 13.33cm x 0.635cm)
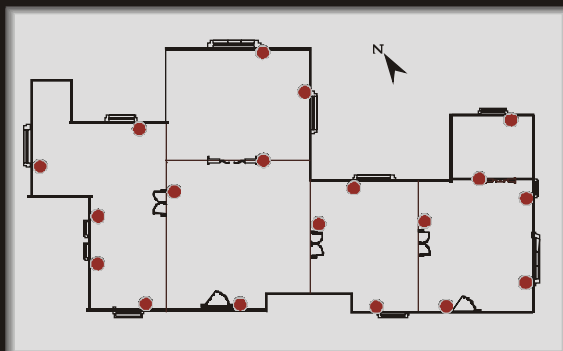
CUSTOM GRAPHIC DISPLAY

 Submit an exact camera ready print of your facility layout and our custom department will fabricate an exact copy of the print submitted onto a brushed aluminum panel. Custom labeling is also available.

INDUSTRIAL DOOR ANNUNCIATOR FOR SIXTY DOORS

4
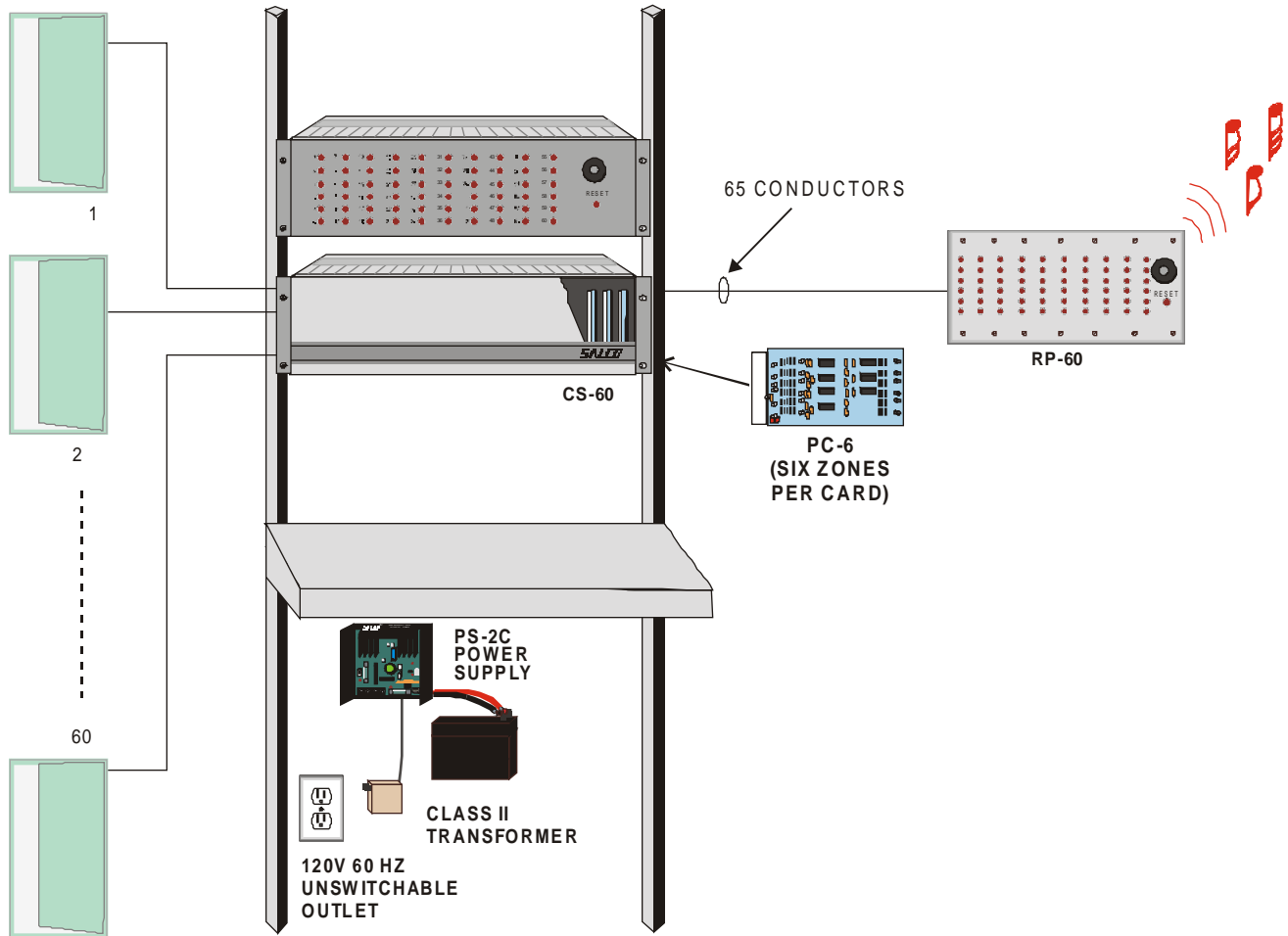
The industrial door annunciator comprises the model CS-60 processor for mounting in a standard 19" rack, the PC-6 six zone processor boards, and the RP-60 display panel, and a PS-2C power supply. The display panel is mounted on a seven gang stainless steel plate or can be custom made for your specific application to mount in a standard 19" rack or graphic display. When a door opens, the LED lamp for that door flashes on and off and the audible sounds. The flashing LED lamp and the sound is stopped by depressing the Reset switch. After reset, the LED lamp subsequently shows the true status of the door. If the door remains open after reset the LED lamp will be illuminated, if the door is closed after reset the LED lamp will be extinguished. Given the scenario where ten doors are open, ten LED lamps will be illuminated on the panel. When another door opens, the LED lamp for that door flashes and the audible sounds to attract the attention of the attendant. Glancing at the display panel the attendant can see which door currently opened because of the flashing LED lamp differentiating from the lamps for the ten opened doors which are illuminated. The system can interface with your existing security system.

SYSTEM CS-60/C

Applications:

Mini-Storage Facilities

Warehouses

Schools

Department Stores

Museums

Nursing Homes

Hospitals, Etc

SYSTEM FEATURES:

The system CS-60/C monitors 60 normally open or normally closed sensor contacts. Almost any type of sensor which has an output relay contact can be monitored by the CS-60/C. The system is pre-wired and requires field wiring of two conductors per sensor to screw terminals on a high density backplane.

The system is in a cast aluminum cabinet with a removable back cover, anti-sliding feet for desktop placement, and shaped depth carrying handles. The cabinet houses ten six zone circuit cards and one common control card.

Upon a sensor violation its respective LED lamp flashes and a piezo audible sound-alert remains sounding. A common pushbutton reset switch silences the audible sound and the LED lamp yields the real time true status of the violated sensor. if the violated sensor remains violated the LED will remain illuminated. If the violated sensors has restored the LED will be extinguished.

- Closed or Open Protective Door Circuit Loops
- Flashing LED and Audible upon Violation
- Push-button Reset for Real Time Sensor Loop Status
- Standard 19" rack technology ANSI/EIA RS-310-C
- High Density Screw Terminal Backplane
- 12 Volts DC Operation
- Plug-in 6 zone circuit cards (PC-6) for modular adaptability (maximum 10 per rack)
- Table Top Placement
- Anti-Slip Rubber Feet
- Shaped Depth Carrying Handle
- Pre-wired ready for field wiring.

ORDER PLACEMENT

Product orders can be placed by calling the Order Desk at 941-377-7717 or by facsimile at 941-379-9680.

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NATIONAL ACCOUNTS:

All new accounts will be on a C.O.D. basis, cash or certified check. A credit application can be processed after a purchase history having a total volume of $5,000.00. On open credit accounts our standard terms of sale are net 30 days following the date of the invoice. There are no discounts for early payment. We accept Visa or Mastercard.

INTERNATIONAL ACCOUNTS:

SALCO also accepts orders from other countries. International orders will be processed on receipt of a Cashier's Check in U.S. funds or a direct wired Telegraph Transfer (TT) to our U.S. bank.

INTEREST ON PAST DUE ACCOUNTS:

Interest at maximum legal rate or 1 1/2% per month, whichever is lower, may be charged on overdue accounts and such amount will be charged from the date the account became overdue.

MINIMUM ORDER

The minimum acceptable order is $25.00.

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Prices are subject to change without notice. Those in effect when we receive your order will apply. All prices are in U.S. currency, F.O.B. Sarasota, Florida.

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Unless you request a specific shipping method, our staff will determine the most expedient and efficient means of transportation. Appropriate charges such as freight, handling, and insurance will be added to your invoice. SALCO ships most of its orders via United Parcel Service by one of three methods and are as follows:

1. Ground Service **(Brown Label)** - Delivery is approximately 2 to 7 working days for most of the continental United States and some parts of Alaska and Hawaii. The cost of Ground Service is the most economical of all three services.

2. Air Service **(Blue Label)** - Delivery is approximately 2 to 3 working days for most of the Continental United States and some parts of Alaska and Hawaii. The cost, however, is two to three times greater than UPS "Ground Service".

3. Air Service **(Red Label)** - Delivery is overnight for most of the Continental United States and some parts of Alaska and Hawaii. The cost is two to three times greater than Air Service (Blue Label).

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Custom orders and products made to order are by special order only. A 50% down payment must accompany the purchase order and the balance is due on delivery. All custom orders, and products made to order, are non cancellable, non refundable and equipment non returnable except for repairs accompanied with a SALCO authorized Return Authorization Number.

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Merchandise for repair should only be returned, shipping charges prepaid, after a Return Authorization Number has been granted by SALCO. All returns are subject to transportation charges. Defects and shortages must be reported within three days after receipt of merchandise. All returned merchandise is subject to a 25% restocking charge. We reserve the right to accept products for repair only (not replacement). SALCO has a no return policy on all products shipped. Except for warranty repairs, all repairs are shipped C.O.D. No cash refund. Merchandise credit only. Credit void after 12 months.

FREIGHT DAMAGE

Your order is filled, checked, and rechecked, and packed with great care. If you receive merchandise that has been damaged in transit it is important to keep the shipping carton, packing materials, and merchandise intact. Please contact the shipper immediately to initiate a claim. Also, please contact SALCO customer service.

SALES TAX

Only Florida residents need to remit the appropriate Sales Tax. SALCO is not able to remit sales tax to states other than Florida

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SALCO™
INDUSTRIES

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e-mail: Security@Salco.com

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SALCO radio controls provide a reliable communications link and fill an important need in portable or wireless signaling. However, there are some limitations which must be observed.

The radios are required to comply with FCC Rules and Regulations as Part 15 devices. As such they have limited transmitter power and therefore limited ranges.
Receivers may be blocked by radio signals that occur on or near their operating frequencies, regardless of code settings.
A receiver cannot respond to more than one transmitted signal at a time.
Infrequently used radio links should be tested regularly to protect against undetected interference or faults.
A general knowledge of radio and its vagaries should be gained prior to acting as a wholesale distributor, dealer, or private installer, and these facts should be communicated to the ultimate users.

FEDERAL COMMUNICATION COMMISSION LICENSING

SALCO long-range supervised-wireless systems require an FCC site license for operation in the U.S.A. Various independent services can be of assistance in frequency coordination and FCC license applications. In addition, FCC rules stipulate the user's call sign must precede all voice transmissions.

SAFETY PRECAUTIONS

The Federal Communications Commission (FCC) has adopted a safety standard for human exposure to radio frequency electromagnetic energy emitted by FCC regulated equipment. In order to limit user exposure to levels substantially below the FCC recommended limits the following guidelines should be adhered to:

DO NOT HOLD THE TRANSMITTER SUCH THAT THE ANTENNA IS IN CLOSER PROXIMITY TO OR TOUCHING EXPOSED PARTS OF THE BODY, ESPECIALLY THE FACE OR EYES WHILE TRANSMITTING. DO NOT ALLOW CHILDREN TO PLAY WITH RADIO TRANSMITTERS. DO NOT OPERATE THE TRANSMITTER NEAR UNSHIELDED ELECTRICAL BLASTING CAPS OR IN AN EXPLOSIVE MANNER.

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