CORNELL
Emergency Response Systems

A-1000 SERIES DOOR MONITOR

OPERATION AND WIRING INSTRUCTIONS

BASIC SYSTEM OPERATION:

Each zone switch contains a red and a green LED. Each time the zone switch is pressed, the zone status toggles between armed and disarmed.

The green LED indicates the disarmed status. The associated door may be opened without causing an alarm. A short and/or open in the door contact wiring will cause the panel to go into the alarm condition.

A steady red LED indicates the armed status. If an armed door is opened, the alarm condition occurs. The red LED will flash and an intermittent audio tone will sound. Pressing the *cancel tone* switch on the master panel will silence the audio tone but will not clear the alarm. If another zone should go into the alarm condition, the tone would again sound until the *cancel tone* switch is pressed or until all alarms are canceled.

To cancel an alarm, simply press and release the zone switch. This will return the zone to the disarmed status and automatically cancel the alarm.

POWER SUPPLY REQUIREMENT:

The A-1000 Series Door Monitor System is designed to operate on regulated 12VDC power. Connecting an AC power source or a DC power supply with a voltage above 12V will damage the system. Make sure you are using one of the following *CORNELL* power supplies: P-512241A, P-512243A, or the B-5243A. Use minimum 18 gauge 2 conductor wiring from power supply to the Master Panel. The B-5243A power supply provides battery back up allowing a typical system to operate 24 hours or more on back-up power.

WIRING:

All wiring to be minimum 22 gauge unless otherwise specified. Refer to drawing D1000W-A for basic system wiring information.

SYSTEM FEATURES:

- *Adjustable alarm volume* - Volume of intermittent tone is adjustable with a screwdriver from the front of the master panel.

- *Door contacts* - The system can use either normally open (N.O.) or normally closed (N.C.) contacts. Two 22 gauge wires required between door switch and zone card. Refer the drawing D1000W-A.

- *Auxiliary output per zone* - Each zone card has a switched negative (open collector) transistor output at terminal 9, which turns on whenever that zone is in the alarm condition. Rating: 500mA, 40VDC

- *Auxiliary output, system* - The "RM" terminal on the tone board is a switched negative (open collector) transistor output, which turns on whenever **any** zone is in the alarm condition. Automatically turns off when all alarms are canceled. Rating: 100mA, 12VDC

- *Door Status Output* - Each zone card has a door status output at terminal 11-switched negative, (open collector) transistor that turns on whenever the door is open, regardless of armed/disarmed status. Rating: 100mA, 12VDC

- *Zone Switch Disable* - Cutting the factory installed Zone Switch Enable jumper between terminals 1 and 3 of a zone card will disable the zone switch from making changes in the armed/disarmed status of the door. Status changes will then only be possible using a remote zone control product (see *OPTIONS-REMOTE ZONE MONITOR/CONTROL PRODUCTS*).

- *Zone Switch Disable during alarm* - Cutting jumper J1 on a zone card will disable the zone switch from making changes in the armed/disarmed status of the door **only when the zone is in the alarm condition.** The zone switch will still function while the zone is either disarmed or armed. Once in the alarm condition, clearing the alarm will only be possible from a remote zone control product. Note: If the Zone Switch Enable jumper (see Zone Switch Disable) is cut, the zone switch will be disabled under all conditions.

OPTIONS-REMOTE ZONE MONITOR/CONTROL PRODUCTS

A-1600 -The Remote Control Panel duplicates the functions of the Master Panel except it has a high/low switch instead of a "Cancel Tone" switch for control of the alarm tone. When the Master Panel tone is silenced the tone for the Remote Control Panel is also silenced. Individual zones have one green LED, one red LED, and a momentary three position, center neutral toggle switch. Activating the toggle switch to the left or right will disarm or arm the zone, respectively. More than one A-1600 panel may be used.

Wiring: Two 18-gauge conductors, one 22-gauge conductor plus four 22-gauge conductors per zone, all to master panel. Refer to drawing DA1600WM.

A-1700 - The Remote Monitor Panel provides a visual and audible indication of any or all zones. Each zone contains one green LED and one red LED. The panel contains a tone hi/low switch to control the audible alarm tone volume. When the Master Panel tone is silenced, the tone at the A-1700 panel is also silenced. More than one A-1700 panel may be used.

Wiring: Two 22-gauge conductors, one 22 conductor plus two 22-gauge conductors per zone, all to master panel. Refer to drawing DA1600WM.

A-1800 - Remote control station for a single zone comprised of one green LED, one red LED, a key switch, and a toggle switch on a single gang stainless steel plate. The key switch will enable/disable the use of the toggle switch. When enabled, the toggle switch will change the status of that zone.

Wiring: Requires 5-conductor 22-gauge cable to Master Panel. Refer to drawing DA1800WM.

A-1801- A key operated switch with built-in timer designed to permit authorized personnel to pass though the door when the zone is armed. The A-1801 has a key switch and red LED mounted on a single gang stainless steel plate. The red LED will glow when the zone is armed. The red LED will flash when the zone is in the alarm condition. Operating the key switch will disarm the zone and start the timer allowing the user to pass through the door. After the user adjustable time period (1 second to one minute, approximately) that zone will automatically re-arm itself.

Wiring: Requires 5-conductor 22-gauge cable from switch to Master Panel. Refer to drawing DA1800WM.

A-1802 - A key switch and a red LED on a single gang stainless steel plate. It is designed to be used in conjunction with the A-1801. A typical application would consist of an A-1802 installed on the outside of a secured door allowing entry into the building when the zone is armed. Operating the key switch starts the timer in the A-1801 disarming the door. After the delay period of the A-1801 timer, the zone will automatically re-arm itself. The red LED will glow when the zone is armed and will flash when the zone is in the alarm condition.

Wiring: Requires four 22-gauge conductors to A-1801. Refer to drawing DA1800WM.

A-1806D - A keypad station with arm/disarm *exit-delay* feature. The exit delay feature will disarm the zone for a user programmable period of 10-60 seconds allowing passage though an armed door. At the end of the delay period, the zone will automatically re-arm itself. The A-1806D contains a 12-key keypad, a red LED, a green LED, and a yellow LED on a two-gang stainless steel plate. The green LED glows when the zone is disarmed. The red LED glows when the zone is armed and flashes when the zone is in the alarm condition. The yellow LED glows during the exit-delay period.

Wiring: Requires six 22-gauge conductors to Master Panel. Refer the drawing DA1806WM.

A-1808D - A keypad station with the *exit delay* feature. The zone cannot be armed or disarmed using the A-1808D.

Wiring: Requires six 22-gauge conductors to Master Panel. Refer to drawing DA1806WM.

A-1900 and A-1901 - Disable switch - Master Panel. Option to disable individual zone switches at the Master Panel. Switch may be mounted on the Master Panel or at a remote location on single gang stainless steel plate (A-1900).

Wiring: Use 2 conductor cable from switch location to pins 1 and 3 on terminal (edge connector) as shown. Jumper from pin 1 to pin 3 must be removed. The disable feature can be wired to selected zones. Refer to drawing DA1900WM.

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