

CROSS ZONING

Application Note

INTRODUCTION

One of the major concerns facing the security industry is the high incidence of false alarms. To combat this problem, DMP has developed and incorporated many false alarm reduction features into its panels and accessory devices. Included among these features is cross zoning where one or more zones can send alarms only when two faults have occurred within a specified time.

One of the most effective false alarm reduction features, cross zoning can be used with any zones. You may cross zone a PIR with itself, two different PIRs, a door and a PIR, or any combination of burglary protection devices to best protect the premises. Cross zoning is a false alarm reduction feature you can assign to almost any zone on the system. Cross zoning is not restricted to any one area, so it provides tremendous flexibility when laying out a system.

Cross zoning, along with Fire Verification, Transmit Delay, Exit Error, and other powerful false alarm reduction features, allows DMP panels to offer you increased opportunities for sales based on the ability to provide unmatched false alarm protection at a very low cost.

CROSS ZONING SETUP

Setting up zones for cross zoning is easily done during initial panel programming. As the installer selects the characteristics for the zone, such as Swinger Bypass, Prewarn at the keypad, and restorals, he also selects Cross Zoning. In System Options, the installer enters a cross zone time between from 4 to 250 seconds. This is the time frame that all cross-zoned devices in the system are to follow. Both cross zoning and cross zone time must be programmed before cross zoning can operate.

Once the system is fully programmed and restored to an operating state, cross-zoned devices work in tandem with all other cross-zoned devices.

HOW CROSS ZONE ALARMS WORK

When the system is armed, cross zoning requires one or more armed and cross-zoned zones to fault within the programmed time before an alarm report is sent to the receiver. During the pre-programmed time, the panel delays sending any alarm reports to the central station until the first device restores and trips again or another cross-zoned device trips. If no other device trips and the cross zone time expires, the panel immediately sends a Fault report for the device that tripped. If the first device does restore and trip again, or another cross-zoned device trips, the panel sends an alarm report and the local bell action activates.

Cross zoning is not compatible with all zone types: You cannot enable cross zoning for Fire verify zones or for any Fire zones that have Retard Delay enabled.

CROSS ZONING APPLICATIONS

There are hundreds of unique applications for cross zoning but they can be grouped into two main categories: residential and commercial.

Residential Applications

Residential security systems have specific requirements that can affect the way cross zoning is used. Perhaps the most important of these is that most residential customers stay at home during the night. Along with the fact that a good portion of residential customers are home during the day, the obvious question raised is, "How can cross zoning be used in a system where the interior protection is usually turned off?"

There are two answers to this:

1. The customer leaves the home empty at some time; this is where an opportunity exists for cross zoning to protect the property while the customer is away.
2. Not all of the interior has to be disarmed at night. Most DMP panels provide Area or Home/Sleep/Away arming that can allow you to divide the interior of a home into two or more separate areas.

Users can then leave disarmed those areas they might need to access at some time during the night, for example the upstairs sleeping areas. The entire downstairs, interior and exterior, can be armed with full cross zoning to give the home a maximum level of security

Commercial Applications

Cross zoning has potential for commercial applications mainly because it can be used on burglary and 24-hour panic and auxiliary zones. The figure shows a small commercial building with an interior PIR and two exterior doors that are programmed for cross zoning. If the contacts on either door fault due to wind shaking the door or wiring problems, the alarm does not sound and only a zone Fault report is sent to the central station.

Should an intruder break through the front or rear door, the programmed cross zone time begins. When the intruder enters the premises far enough to fault the PIR covering the corridor, a local alarm sounds and an Alarm report is sent to the central station indicating that a second cross-zoned device (PIR) was tripped within the programmed cross zone time.

Cross zoning can be used effectively in multi-suite buildings or those that require protection devices placed in close proximity to each other. The real promise of cross zoning, however, is in its ability to reduce the incidence of false alarms caused by changes in the environment in which the protection devices are installed.

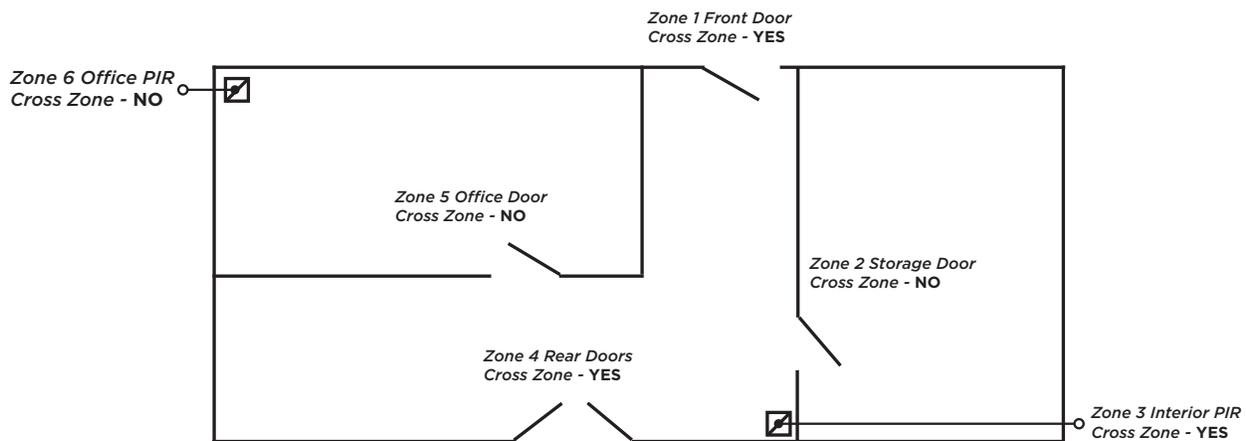


Figure 1: Commercial Application



Designed, engineered, and manufactured in Springfield, MO using U.S. and global components.

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