Selecting the Right Federal Siren

Determining the sound range for audible signals

In determining the type of signal required for a specific application, the following variables must be considered:

1. The location and height of a signal may alter sound distribution. Mounting a signal too high may produce good range, but may skip nearby areas. Mounting a signal too low reduces range. The best average height is 40 to 50 feet above ground in the center of the area to be covered.
2. Obstacles to sound travel, such as buildings, hills and trees, will modify the sound pattern. When selecting a location for a siren, try to avoid obstacles which will decrease the effectiveness of the signal. Consideration should also be given to prevailing winds.
3. Whether an omni-directional (uniform signal distribution) or rotating directional (long-throw wide-area coverage) siren will serve best.
4. Consult the Federal Emergency Management Agency (FEMA) document titled "Outdoor Warning Systems Guide" #CPG 1-17 for complete siting and planning procedures.

The factors listed above can affect the sound patterns produced by a signal. The Effective Ranges shown will be helpful in determining which size of siren will be required to serve various-sized areas.

About Decibel Ratings

Because it is very difficult to satisfy all conditions necessary to obtain consistently accurate outdoor ratings, Federal sirens listed in this catalog carry maximum sound output ratings measured both in our anechoic chamber (free-field non-reflective) and under outdoor conditions, and certified by independent engineering consultants.

Mounting Considerations

As stated, a mounting height of at least 40 feet above ground is usually best. If the siren is to be located on a flat roof, it should be eight to ten feet above roof level to prevent deflection of sound.

If the roof has a parapet wall, the siren should be eight to ten feet above the top of the wall to insure unobstructed sound coverage.

On a peaked roof, the siren should be mounted over the highest part of the roof. Federal sirens may be provided with angle irons for pole or platform mounting depending upon your specific requirements.

Testing

After all factors for the size and location of a siren have been considered, it is recommended that the siren be mounted and wired in a temporary manner so the unit can be tested at the selected location and height. When the siren performs satisfactorily, the installation may then be made permanent.

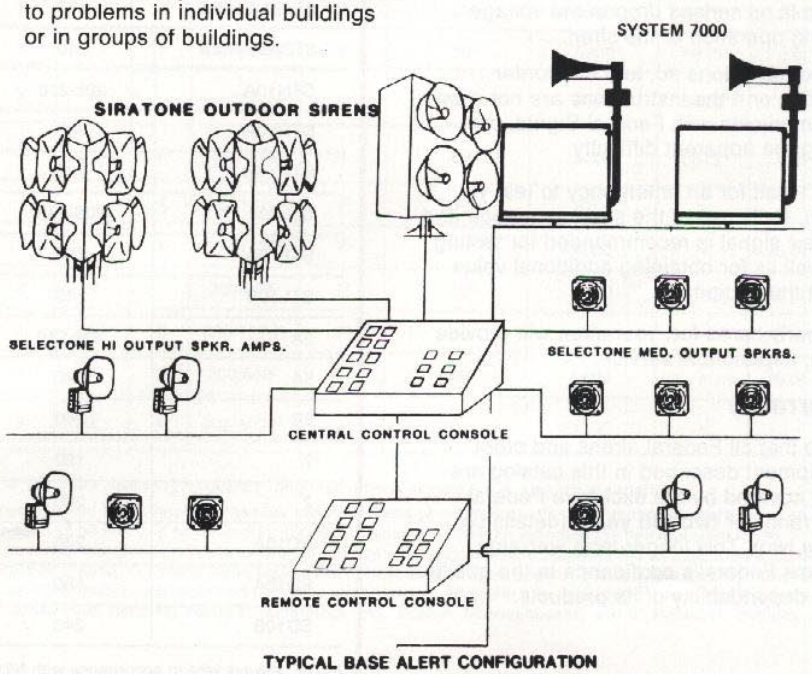
Military Base Alert Systems

Federal Base Alert Systems (BAS) provide for alerting on-base personnel to the presence of situations threatening life safety or base security. For outdoor areas, a typical BAS will employ SiraTone electronic outdoor warning sirens in areas where voice communication is desirable, and high-powered electromechanical sirens for signal-only coverage.

The system will also provide for alerting personnel indoors by means of SelecTone speaker/amplifiers. Battery backup power makes them independent of primary power with either supervised or unsupervised circuits. When used in conjunction with heat-, smoke-, or intrusion-detection devices, a SelecTone system can alert the base fire department, or Military Police and/or others to problems in individual buildings or in groups of buildings.

A fully-integrated central control console will provide an individual or group alert signaling with voice capability contingent upon the need. Remote control is a desirable option. A desk- or console-mounted switching control panel can accommodate multiple-zone operation for alerting particular groups of personnel to take specific actions.

The Federal modular concept allows easy, economical expansion of a basic Federal BAS to meet the most demanding needs. The experienced Federal Engineered Systems Group stands ready to help in designing new systems or integrating advanced capability into existing systems.



TYPICAL BASE ALERT CONFIGURATION