

Radio activation by means of tone code signals from an existing Radio Base Station Transmitter Frequency offers the most reliable and most economical system control method. Whether for new systems or to convert a system presently activated by local or leased landline control, radio activation is the most economical method of siren activation. All that is required for radio-tone control is one tone encoder to operate with an existing radio transmitter from the control point, and a Siratrol receiver/decoder at each siren location.

Tone codes on the encoder can be assigned to activate the prescribed signals, simultaneously on all sirens in a multiple system, on selected groups of sirens, or on individual sirens.

The Federal Siratrol can be a combination radio receiver, tone decoder and timer enclosed in a weatherproof enclosure for indoor or outdoor warning (adjacent to the motor starter). The type ARC 1 Siratrol provides three functions for a two-signal siren:

1. Alert (3-minute steady signal).
2. Attack Warning (3-minute wail signal).
3. Test-Cancel Function (silent test of radio and tone circuits advances numerical counter in panel—cancel function on same tone code will cancel alert or attack warning audible signal already in progress.)

The type ARC 2 Siratrol adds a fourth function for use with three-signal sirens, the third signal being an alternating hi-lo wail, usually used as a fire signal. Signal duration is two minutes.

When Siratrols are used with the electronic outdoor warning sirens, the electro-mechanical signal timer and motor starters are not supplied, therefore allowing the receiver/decoder package to be installed within the EOWS control unit.

To minimize or eliminate the possibility of falsing, a careful analysis of the existing radio control system is recommended. Federal can provide either two-tone sequential or dual-tone multiple frequency (DTMF) control schemes which can operate in new or existing systems. Additional security can be provided from the use of the optional sub-audible (CTCSS) continuous tone-coded squelch system by specifying the TS-32 option.

Models Available

ARCL—Low Band (30-54 MHz)
 ARCH—High Band (132.0-174 MHz)
 ARCU—UHF (450-512 MHz)

Specifications

R-F Stability
 0.0025% (-30°C to +60°C)

Sensitivity

UHF Band: .50 microvolts for usable signal
 (12 dB sinad) .7 microvolts for 20 dB quieting

High Band: .35 microvolts for usable signal
 (12 dB sinad) .5 microvolts for 20 dB quieting

Low Band: .25 microvolts for usable signal
 (12 dB sinad) .35 microvolts for 20 dB quieting

Selectivity

Bandwidth: 6 dB at ± 5 KHz
 Bandwidth: 60 dB at ± 20 KHz

Image and Spurious Response

At least 60 dB down except UHF
 RF image at least 30 dB down

Tone Activation: Two-tone Sequential

Frequency range: 300 to 3000 Hz
 Tone timing: 1st tone 3 sec., 2nd tone 2 sec.; or 1st tone 1 sec., 2nd tone 3 sec.
 Bandwidth: $\pm 2\%$

Tone Activation: Dual-tone Multiple-Frequency

Code capacity: 3 to 8 digit address, programmable
 Data rate: 0.3 to 15 dps @ 2.5 sec. interdigit interval
 Frequency acceptance: $\pm 2.5\%$ of nominal tone frequencies.

Outputs

A maximum of 16 momentary and 4 latched outputs are available with the DTMF decoder.

The mechanical counter will advance upon receipt of any valid digit sequence, thus counting all siren functions.