Title (en)
SIREN DETECTOR

Title (de)
SIRENENDETEKTOR

Title (fr)
DETECTEUR DE SIRENE

Publication
EP 0748494 B1 19980617 (EN)

Application
EP 94908234 A 19940304

Priority
CA 9400119 W 19940304

Abstract (en)
[origin: WO9524028A1] An improved siren detector for detecting siren sounds which precess at known warble rates, such as yelp, wail, and high-low, within a selected frequency band. A transducer detects the siren sounds and produces a corresponding electrical output signal. This electrical output signal is filtered to reject signals outside of the selected siren frequency band. The signal is processed to determine the amplitude of the electrical signal, and hence the sound level of the siren sound at the transducer input. This signal is also processed by an amplitude limiter and frequency discriminator to determine the instantaneous frequency of the siren sound. This discriminator is followed by a non-linear filter to remove the FM clicks characteristic of siren sounds having a low signal to noise ratio. Selection filters are used to analyze the precession rates, maximum frequency, minimum frequency, and shape of the precession characteristic to classify the siren as to its type, such as yelp, wail, and high-low. A sound which meets the selection criteria and has a sound level above a predetermined threshold causes the siren detector to trigger signal which drives a preempt output. This preempt output signal is input to a traffic light control system. This alerts the traffic light control system to control the Pedestrian Walk/Don't Walk and traffic lights to cause pedestrians to clear the intersection and to provide a preemptive traffic control signal to a vehicle eqquipped with the appropriate siren.

IPC 1-7
G08G 1/087

IPC 8 full level
G01H 3/06 (2006.01); **G08G 1/087** (2006.01); **G10L 15/00** (2013.01); **G10L 15/10** (2006.01); **G10L 15/20** (2006.01); **G10L 17/26** (2013.01); **G10L 21/0208** (2013.01)

IPC 8 main group level
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