Title (en)

Alarm device testing using time-encoded acoustic messages

Title (de)

Alarmvorrichtungsprüfung unter Verwendung von zeitcodierten akustischen Nachrichten

Title (fr)

Test de dispositif d'alarme utilisant des messages acoustiques à codage temporel

Publication

EP 2461299 B1 20210224 (EN)

Application

EP 11394025 A 20111202

Priority

IE 20100762 A 20101206

Abstract (en)

[origin: EP2461299A2] A smoke alarm device has an interface (1) with a microprocessor (2), and transistors (3, 4) controlling a piezo horn (5). The microprocessor (2) is programmed to generate a test output record including various items of data such as the device's serial number, the battery level, a contamination level if it is an optical alarm, an event log, and an installation date. This information is encoded by control of the transistors (3, 4) in an acoustic output from the piezo horn (5) using an encoding technique akin to Morse code. The data is decoded by any electronic testing device having a microphone and a processing capability, such as a PDA, a laptop computer, or even a mobile phone. Devices with stereo microphones can also be used for better performance. If the device has a camera then it could both capture the acoustic signal and take an image of the alarm device to provide a more comprehensive record. In one example, a mobile phone downloads over a mobile network an application to do this processing. In order to do an audit it is only necessary for the technician to press a test button upon which the microprocessor (1) generates the acoustic signal with audit data. This acoustic signal is captured by the testing device and either decoded by that device or uploaded to a central host for decoding and further processing and storage.

IPC 8 full level

G08B 1/08 (2006.01); **G08B 29/14** (2006.01)

CPC (source: EP)

G08B 1/08 (2013.01); **G08B 29/145** (2013.01)

Citation (examination)

- US 6469623 B2 20021022 - PATTOK GREG R [US], et al
- US 2003210138 A1 20031113 - FARLEY DANIEL G [US]

Cited by

EP4089655A1; EP3422311A1; CN104734779A; CN111656419A; US2020394900A1; CN115311834A; US11651675B2; WO2018044331A1; WO2019152044A1; EP3746998B1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

EP 2461299 A2 20120606; **EP 2461299 A3 20150729**; **EP 2461299 B1 20210224**; DE 202011110746 U1 20160126; IE 20110538 A1 20120606

DOCDB simple family (application)

EP 11394025 A 20111202; DE 202011110746 U 20111202; IE 20110538 A 20111206