Title (en)

SYSTEMS AND METHODS FOR A PORTABLE WALK-THROUGH METAL DETECTOR

Title (de)

SYSTEME UND VERFAHREN FÜR TRAGBARE BEGEHBARE METALLDETEKTOREN

Title (fr)

SYSTEMES ET PROCEDES POUR PORTIQUE DE DETECTION EN METAL

Publication

EP 1611460 A2 20060104 (EN)

Application

EP 04750755 A 20040427

Priority

- US 2004012966 W 20040427
- US 46683903 P 20030429
- US 81330904 A 20040329
- US 81328804 A 20040329

Abstract (en)

[origin: WO2004097456A2] A portable walk through metal detector with interchangeable sensor panels and other structural members that can be quickly assembled, or disassembled and transported. The device includes two structural base members to anchor the archway, multiple sensor panels with which the sides of the archway are constructed, and a top cross-member to join and support the walls of the archway. In addition, the top cross-member provides a vehicle platform for moving a disassembled unit with built-in wheels, a handle, and stacking structures to support the other members. A metal detection circuit is also provided that includes a power source and a connection to ground. At least one transmitter circuit is electrically coupled to the power source and ground and a transmit coil is electrically coiled to the transmitter circuit. At least one receiver coil has provided along with an amplifier to be electrically coupled to the receiver coil. An integrator is electrically coupled to the amplifier and a track/hold circuit is electrically to the integrator. A filter is electrically coupled to the track/hold circuit and an output. The circuit provides a high amplitude, low duty cycle excitation pulse, which allows for the sensitivity of a high level excitation signal with the power economy of a much lower energy excitation signal. The receiver circuit collects and conditions the signals resulting from the relatively short duration, large amplitude excitation pulse, and goes in to hold mode during the relatively long charge and idle periods.

IPC 1-7

G01V 1/00

IPC 8 full level

G08B 13/18 (2006.01); **G01V 3/10** (2006.01)

CPC (source: EP KR)

G01V 3/10 (2013.01 - KR); **G01V 3/104** (2013.01 - EP); **G08B 13/24** (2013.01 - KR)

Citation (search report)

See references of WO 2004097456A2

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