

Title (en)  
DETONATOR BLACK BOX

Title (de)  
DETONATOR-BLACKBOX

Title (fr)  
BOÎTE NOIRE DE DÉTONATEUR

Publication  
**EP 4172552 A1 20230503 (EN)**

Application  
**EP 21829470 A 20210625**

Priority  
• US 202063045073 P 20200627  
• US 2021039102 W 20210625

Abstract (en)  
[origin: WO2021263110A1] A detonator includes a substrate, a controller mounted to the substrate, and a sensor coupled to the controller to measure a temperature, pressure, acceleration or other environmental info and/or electrical status of the internal electronics of the detonator. The controller is configured to store the measured environmental parameter and/or electrical status in a memory of the detonator, transmit the stored data from the detonator to a remote master controller, execute an action in response to a value of the measured environmental parameter, and/or prevent or modify at least one detonator function in response to the data obtained.

IPC 8 full level  
**F42B 3/10** (2006.01)

CPC (source: EP US)  
**F42B 3/10** (2013.01 - EP); **F42D 1/05** (2013.01 - EP US)

Designated contracting state (EPC)  
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Designated extension state (EPC)  
BA ME

Designated validation state (EPC)  
KH MA MD TN

DOCDB simple family (publication)  
**WO 2021263110 A1 20211230**; AU 2021294333 A1 20230202; AU 2021294333 B2 20240418; CA 3183208 A1 20211230; CL 2022003704 A1 20230512; EP 4172552 A1 20230503; MX 2022016564 A 20230201; US 2023266109 A1 20230824

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**US 2021039102 W 20210625**; AU 2021294333 A 20210625; CA 3183208 A 20210625; CL 2022003704 A 20221222; EP 21829470 A 20210625; MX 2022016564 A 20210625; US 202118010723 A 20210625