

## Title (en)

Electro-explosive initiator and method of manufacture

## Title (de)

Pyrotechnischer elektrischer Anzünder und Montageverfahren

## Title (fr)

Initiateur électropyrotechnique et procédé d'assemblage

## Publication

**EP 1327850 A1 20030716 (FR)**

## Application

**EP 02290061 A 20020110**

## Priority

EP 02290061 A 20020110

## Abstract (en)

Electro pyrotechnic initiation switch consists of a housing made from two plastic sub-assemblies: a first sub-assembly (2) having a wall (4) and base (5) forming a container for a pre-compressed pyrotechnic charge made from two compounds (7, 8), and a second sub-assembly (3) with two conducting pins (11, 12) in line with its main axis. Electro pyrotechnic initiation switch consists of a housing made from two plastic sub-assemblies: a first sub-assembly (2) having a wall (4) and base (5) forming a container for a pre-compressed pyrotechnic charge made from two compounds (7, 8), and a second sub-assembly (3) with two conducting pins (11, 12) in line with its main axis, connected by an electrical bridge (13) at one end (14) of the sub-assembly. The two sub-assemblies, made from a plastic with a low moisture take-up, are sealed together by ultrasound welding. The invention relates to an electro-pyrotechnic initiator comprising a pyrotechnic charge (6) provided with at least one composition, and a plastic housing (1) with two substructures. The first substructure (2) comprises a plastic wall (4) which is fixed to a plastic base (5) so as to form a container. The second plastic substructure (3) has a main axis and is penetrated in the direction of said axis by at least two pins (11, 12) which are connected to each other on one surface (14) of said substructure (3) via an electrical bridge (13). Said surface (14) is symmetrically hollow along a height H and a width L. The second substructure (3) forms a base. The first (2) and second (3) substructures are joined in an air-tight manner by means of ultrasonic welding.

## Abstract (fr)

L'invention concerne un initiateur électro-pyrotechnique comportant une charge pyrotechnique (6), ladite charge (6) comprenant au moins une composition. Il comprend également un boîtier (1) en matière plastique comportant deux sous-ensembles. Le premier sous-ensemble (2) comprend une paroi (4) en plastique solidaire d'un fond (5) également en plastique et formant un contenant. Le deuxième sous-ensemble (3) en plastique ayant un axe principal (10) est traversé par au moins deux broches (11, 12) selon la direction dudit axe (10). Ces broches (11, 12) sont reliées entre elles par un pont électrique (13) sur une face (14) dudit sous-ensemble (3). Cette face (14) est évidée symétriquement sur une hauteur H et une largeur L. Le deuxième sous-ensemble (3) forme une embase. Les premier (2) et deuxième (3) sous-ensembles sont assemblés hermétiquement par soudage ultrasons. <IMAGE>

## IPC 1-7

**F42B 3/195**

## IPC 8 full level

**B29C 65/08** (2006.01); **F42B 3/195** (2006.01); **F42B 3/12** (2006.01)

## CPC (source: EP KR US)

**F42B 3/195** (2013.01 - EP KR US)

## Citation (search report)

- [X] US 5423261 A 19950613 - BERNARDY JEAN-CLAUDE [FR], et al
- [X] US 5648634 A 19970715 - AVORY MARK LUCAS [US], et al

## Cited by

WO2006106257A1; EP1710532A1

## Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

## DOCDB simple family (publication)

**EP 1327850 A1 20030716; EP 1327850 B1 20060517**; AT E326679 T1 20060615; AU 2003214308 A1 20030724; CA 2472652 A1 20030717; CN 100365374 C 20080130; CN 1615425 A 20050511; CZ 2004794 A3 20050316; CZ 304930 B6 20150128; DE 60211462 D1 20060622; DE 60211462 T2 20070426; ES 2261605 T3 20061116; HU P0500019 A2 20050628; JP 2005514578 A 20050519; JP 4295115 B2 20090715; KR 100916824 B1 20090914; KR 20040101203 A 20041202; MX PA04006624 A 20050331; PL 203293 B1 20090930; PL 371132 A1 20050613; TW 200305708 A 20031101; TW I282403 B 20070611; US 2005081731 A1 20050421; US 7293504 B2 20071113; WO 03058154 A1 20030717; ZA 200405412 B 20051011

## DOCDB simple family (application)

**EP 02290061 A 20020110**; AT 02290061 T 20020110; AU 2003214308 A 20030110; CA 2472652 A 20030110; CN 03802133 A 20030110; CZ 2004794 A 20030110; DE 60211462 T 20020110; ES 02290061 T 20020110; FR 0300080 W 20030110; HU P0500019 A 20030110; JP 2003558418 A 20030110; KR 20047010757 A 20030110; MX PA04006624 A 20030110; PL 37113203 A 20030110; TW 92100506 A 20030110; US 50123704 A 20040712; ZA 200405412 A 20040707