

Nicolas Vargas

Search history

Search PN=(WO2016196043) (Results 1)

1:

Search PN=(WO2017155723) (Results 1)

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Search PN=(WO2017123952) (Results 1)

3:

Search PN=(WO2016129984) (Results 1)

4:

Search PN=(WO2018007724) (Results 1)

5:

Search [SP]: 1. a firing control unit comprising a control module (13) and first terminals (11) designed to receive a firing line (21) to which is linked a set of electronic detonators (20), the firing control unit (10) further comprising second terminals (12) designed to receive a synchronization line (22) to which is linked a second firing control unit (10), and switching means (14) able to be configured in several configurations such that the control means (13) can be connected to or disconnected from the first terminals (11) or the second terminals (12) respectively, wherein and in that the first terminals (11) and the second terminals (12) can be connected to or disconnected from each other.2. the firing control unit in accordance with claim 1, wherein said switching means (14) can be configured such that said control module (13) is connected to the first terminals (11), the first terminals (11) and the second terminals (12) being connected together, or such that the control module (13) is disconnected from the first terminals (11) and from the second terminals (12), the first terminals (11) and the second terminals (12) being connected together.3. the firing control unit in accordance with claim 1, wherein the switching means (14) can be configured such that said control module (13) is linked to the first terminals (11), the first terminals (11) and the second terminals (12) being disconnected from each other.4. the firing control unit in accordance with claim 1, wherein the switching means (14) can be configured such that said control module (13) is connected to the second terminals (12), the first terminals (11) and the second terminals (12) being disconnected from each other.5. the firing control unit in accordance with claim 1, wherein the switching means (14) comprise a first switching module (140) and a second switching module (141), said first switching module (140) enabling the connection of said control module (13) to said first terminals (11) or to said second switching module (141), and said second switching module (141) enabling the first switching module (140) to be connected to or disconnected from said second terminals (12).6. the firing control unit in accordance with claim 1, wherein said switching means (14) comprise electro-mechanical relays (r1, r2, r3).7. a system for firing at least two sets of detonators (20) comprising at least two firing control units (10a, 10b, 10c), each firing control unit (10a, 10b, 10c) comprising first terminals (11) receiving a firing line (21) to which is linked a set of detonators (20), wherein said at least two firing control units (10a, 10b, 10c) are connected together via a synchronization line (22), each firing control unit (10a, 10b, 10c) comprising second terminals (12) receiving said synchronization line (22), it being possible for a control module (13), and switching means (14) to be configured in several configurations such that the control means (13) can be connected to or disconnected from the first terminals (11) or the second terminals (12) respectively, and the first terminals (11) and the second terminals (12) can be connected together or disconnected from each other.8. the firing system in accordance with claim 7, wherein said switching means (14) of a master firing control unit (10b) can be configured such that said control module (13) is connected to said first terminals (11), and such that the first terminals (11) and the second terminals (12) are connected together, and the switching means (14) of a slave firing control unit (10a, 10c) can be configured such that said control module (13) is disconnected from said first terminals (11) and from the second terminals (12), and such that said first terminals (11) and said second terminals (12) are connected together.9. the firing system in accordance with claim 7, wherein the switching means (14) of said at least two firing control units (10) can be configured such that said control module (13) is linked to said first terminals (11), said first terminals (11) and said second terminals (12) being disconnected from each other.10. the firing system in accordance with claim 7, wherein said switching means (14) of said at least two firing control units (10) can be configured such that said control module (13) is linked to said second terminals (12), said first terminals (11) and said second terminals (12) being disconnected from each other.11. a method of firing at least two sets of detonators in a firing system (1), the firing system (1) comprising at least two firing control units, each firing control unit comprising first terminals (11) receiving a firing line (21) to which is linked a set of detonators (20), second terminals (12), a control module (13) and switching means (14), said at least two firing control units (10) being connected together via a synchronization line (22) linked to said second terminals (12), said method comprising the configuration (s20, s3) of said at least two firing control units in a configuration, said configuration (s20, s3) of said at least two firing control units comprising positioning the switching means (14) such that the control means (13) can be connected to or disconnected from the first terminals (11) or the second terminals (12) respectively, and such that the first terminals (11) and the second terminals (12) can be connected together or disconnected from each other.12. the firing method according to claim 11, further comprising (s3) the configuration of the firing control units (10) in a coupling configuration comprising: positioning the switching means (14) of a master firing control unit (10b) such that said control module (13) is connected to said first terminals (11), and such that said first terminals (11) and said second terminals (12) are connected together and positioning the switching means (14) of a slave firing control unit (10a, 10c) such that the control module (13) is disconnected from the first terminals (11) and from the second terminals (12), and such that the first terminals (11) and the second terminals (12) are connected together.13. the firing method according to claim 11, further comprising configuring (s20) the firing control units (10) in a testing configuration comprising positioning the switching means (14) of the firing control units (10a, 10b, 10c) such that the control module is linked to said first terminals (11), said first terminals (11) and said second terminals (12) being disconnected from each other.14. the firing control unit in accordance with claim 2, wherein the switching means can be configured such that said control module is linked to the first terminals, the first terminals and the second terminals being disconnected from each other.15. the firing control unit in accordance with claim 2, wherein the switching means can be configured such that said control module is connected to the second terminals, the first terminals and the second terminals being disconnected from each other.16. the firing control unit in accordance with claim 3, wherein the switching means can be configured such that said control module is connected to the second terminals, the first terminals and the second terminals being disconnected from each other.17. the firing control unit in accordance with claim 2, wherein the switching means comprise a first switching module and a second switching module, said first switching module enabling the connection of said control module to said first terminals or to said second switching module, and said second switching module enabling the first switching module to be connected to or disconnected from said second terminals.18. the firing control unit in accordance with claim 3, wherein the switching means comprise a first switching module and a second switching module, said first switching module enabling the connection of said control module to said first terminals or to said second switching module, and said second switching module enabling the first switching module to be connected to or disconnected from said second terminals.19. the firing control unit in accordance with claim 4, wherein the switching means comprise a first switching module and a second switching module, said first switching module enabling the connection of said control module to said first terminals or to said second switching module, and said second switching module enabling th (Results 6)

Search 6 and pd<20160704 (Results 5)

7:

Title: SYSTEM FOR TRIGGERING A PLURALITY OF ELECTRONIC DETONATOR ASSEMBLIES

Abstract: A system for triggering includes a plurality of electronic detonator assemblies (11), where each electronic detonator assembly (11) is connected to a leading wire (12) linked to a local fire control unit (12). At least one of the local fire control units (13S) includes an electronic synchronization module (14) connected to a leading wire linked to a master local fire control unit (13M), which is one of the local fire control units (13). The system is suitable for use in triggering a plurality of electronic detonator assemblies (11) according to a single blasting pattern.

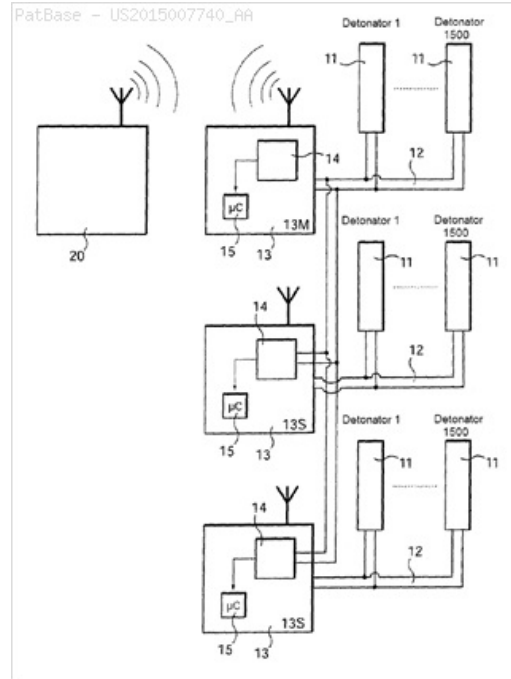
Classifications:

International (IPC 8-9): F42D F42D1/05 F42D1/055 F42D1/06

F42D1/55 (Advanced/Invention)

CPC: F42D1/05 F42D1/06 F42D1/055

US: 1/1 102/215 102/217



Family:

Publication number	Publication date	Application number	Application date
AU2012356548 AA	20130627	AU20120356548	20121212
AU2012356548 BB	20160915	AU20120356548	20121212
BR112014014981 A2	20170704	BR20141114981	20121212
CA2858793 AA	20140610	CA20122858793	20121212
CL2014001597 A1	20141003	CL20140001597	20140617
CL56734 B	20181129	CL20140001597	20140617
CO7061043 A2	20140919	CO20140139515	20140627
EA030233 B1	20180731	EA20140091217	20121212
EA201491217 A1	20140930	EA20140091217	20121212
EP2795238 A1	20141029	EP20120816723	20121212
EP2795238 B1	20170517	EP20120816723	20121212
ES2636682 T3	20171006	ES20120816723T	20121212
FR2984484 A1	20130621	FR20110061953	20111219
FR2984484 B1	20180615	FR20110061953	20111219
MX2014007347 A1	20141125	MX20140007347	20121212
MX356274 B	20180518	MX20140007347	20121212
PE20922014 A1	20150111	PE20140000985	20121212
TR201711093 T4	20171121	TR20170011093T	20121212
UA114498 C2	20170626	UA20140008161	20121212
US2015007740 AA	20150108	US20120366420	20121212
US9366518 BB	20160614	US20120366420	20121212
WO13093300 A1	20130627	WO2012FR52899	20121212
ZA201405244 A	20151125	ZA20140005244	20121212

Priority:

FR20110061953 20111219 EP20120816723 20121212 WO2012FR52899 20121212

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Inventor(s): GUYON FRANCKFR ; BOUAMAR SAMIRFR

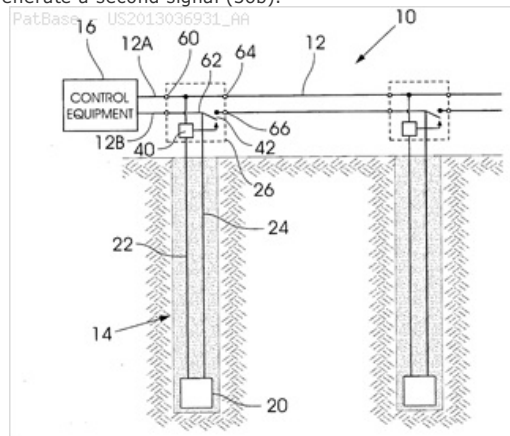
Agent(s): WATERMARK PATENT AND TRADE MARKS ATTORNEYS; WATERMARK INTELLECTUAL PROPERTY PTY LTD; ROBIC; JARRYIP SPA; JAIME EDUARDO DELGADO VILLEGAS; SANTARELLI; VALLEJO JUAN PEDRO; TUGBA GUENDEMIR; YOUNG AND THOMPSON

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: TWO WIRE DAISY CHAIN**Abstract:** A detonator (20) which, in response to a command, uses a first modulation process (46) to generate a first signal (36a) and, in response to an event, uses a second modulation (48) process to generate a second signal (36b).**Classifications:****International (IPC 8-9):** F42C19/06 F42C21/00 F42D1/045 F42D1/05

F42D1/055 (Advanced/Invention);

F42D (Subclass/Invention)

International (IPC 1-7): F42D1/055**CPC:** F42D1/045 F42D1/05 F42C19/06 F42D1/055**European:** F42D1/045 F42D1/05 F42D1/055**US:** 1/1 102/202.9 102/206**Family:**

Publication number	Publication date	Application number	Application date
AR081289 AA	20120801	AR2011P101523	20110503
AU2011249851 AA	20111110	AU20110249851	20110418
AU2011249851 BB	20151029	AU20110249851	20110418
CA2777728 AA	20111110	CA20112777728	20110418
CA2777728 C	20150203	CA20112777728	20110418
DE602011006986 D1	20140703	DE201160006986T	20110418
EP2478326 A1	20120725	EP20110727390	20110418
EP2478326 B1	20140514	EP20110727390	20110418
US2013036931 AA	20130214	US20110582688	20110418
US2016033247 AA	20160204	US20150881101	20151012
US9157719 BB	20151013	US20110582688	20110418
US9671206 BB	20170606	US20150881101	20151012
WO11140571 A1	20111110	WO2011ZA00025	20110418
ZA201202572 A	20130227	ZA20120002572	20120411

Priority:

ZA20100003087 20100504 EP20110727390 20110418 WO2011ZA00025 20110418
US20120582688 20120904 US20150881101 20151012

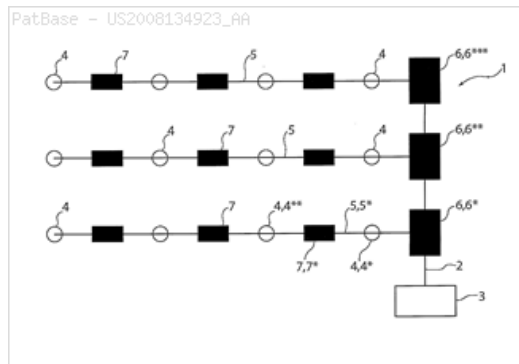
Probable Assignee: DETNET SOUTH AFRICA PTY LTD**Assignee(s):** (std): DETNET SOUTH AFRICA PTY LTD ; SCHLENTER CRAIG CHARLES**Assignee(s):** DETNET SOUTH AFRICA PTY LIMITED**Inventor(s):** (std): SCHLENTER CRAIG CHARLES**Agent(s):** GRIFFITH HACK; OYEN WIGGS GREEN AND MUTALA LLP; VIRDEE CROFTS KULWINDER KAUR; MICHAEL BEST AND FRIEDRICH LLP; MCCALLUM RADEMEYER AND FREIMOND ET AL**Designated states:** AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW**Title:** ELECTRONIC BLASTING SYSTEM**Abstract:** An electronic blasting system (1) comprising a control unit (3), a surface harness and electronic detonators (4) connected to the surface harness by a 2-wire lead, the detonators (4) being adapted to provide information to the control unit (3) in response to command signals transmitted by the control unit (3) along the surface harness; wherein the surface harness comprises a primary line (2) with trunk lines (5) connect to it, wherein each trunk line (5) has connected to it individual detonators (4) making up the same row, wherein each trunk line (5) is connected to the primary line (2) by an actuator (6), and wherein each trunk line (5) includes an actuator (7) between adjacent detonators (4).**Classifications:****International (IPC 8-9):** F23Q21/00 F42C19/12 F42D1/005 F42D1/055

F42D3/04 (Advanced/Invention);

F42C19/00 F42D1/00 F42D3/00 (Core/Invention);

F42D (Subclass/Invention)

CPC: F42D1/055 F42D3/04**European:** F42D1/055 F42D3/04**US:** 102/215 361/249



Family:

Publication number	Publication date	Application number	Application date
AU2006222557 AA	20060914	AU20060222557	20060309
AU2006222557 BB	20101216	AU20060222557	20060309
CA2596373 AA	20070730	CA20062596373	20060309
CA2596373 C	20130507	CA20062596373	20060309
CL2006000525 A1	20070119	CL20060000525	20060309
CL46710 B	20100820	CL20060000525	20060309
EP1856475 A1	20071121	EP20060704988	20060309
EP1856475 A4	20110504	EP20060704988	20060309
EP1856475 B1	20160427	EP20060704988	20060309
ES2584287 T3	20160926	ES20060704988T	20060309
PE12612006 A1	20061216	PE20060000267	20060308
US2008134923 AA	20080612	US20060885643	20060309
US7911760 BB	20110322	US20060885643	20060309
WO06094358 A1	20060914	WO2006AU00315	20060309
ZA200706295 A	20080925	ZA20070006295	20070730

Priority:

US20050659407P 20050309 EP20060704988 20060309 US20060885643 20060309
WO2006AU00315 20060309

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Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LC LI LK LR LS LT LU LV LY MA MC MD MG MK ML MN MR MW MX MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SM SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

4) Family number: 40901496 (US2010288149A)

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Title: DENTONATOR CROSS-TALK REDUCTION

Abstract: A detonator system (10) which has a plurality of segments (16), each segment having a respective plurality of detonators (14), and a synchroniser (18, 12), which may be a compound arrangement or a single device, which prevents the transmission of voltage modulated signals to the detonators (14) in one segment (16A) if current modulated segments are being transmitted from the detonators (14) in another segment (16B).

Classifications:

International (IPC 8-9): F42D1/00 F42D1/05

F42D1/055 (Advanced/Invention);

F42D1/00 (Core/Invention);

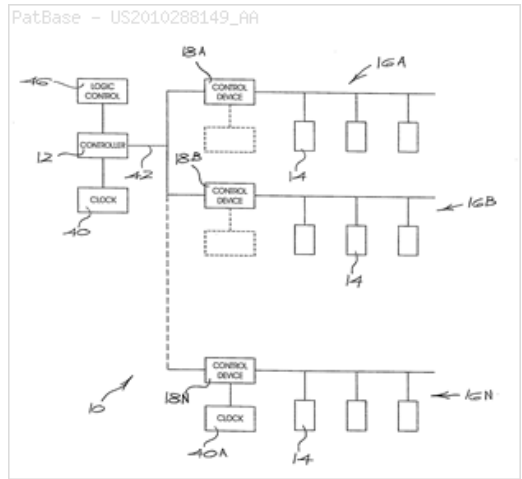
F42D (Subclass/Invention)

International (IPC 1-7): F42C11/06 F42C11/6

CPC: F42D1/055

European: F42D1/055

US: 102/206 102/206S 102/217



Family:

Publication number	Publication date	Application number	Application date
AP200804695 A0	20081231	AP20080004695	20070521
AP2534 A	20121219	AP20080004695	20070521
AR061158 AA	20080806	AR2007P102376	20070601
AT506596 E	20110515	AT20070784570T	20070521
AU2007256611 AA	20071213	AU20070256611	20070521
AU2007256611 BB	20111006	AU20070256611	20070521
CA2654832 AA	20081209	CA20072654832	20070521
CA2654832 C	20120103	CA20072654832	20070521
CL2007001659 A1	20071123	CL20070001659	20070607
CL53545 B	20161212	CL20070001659	20070607
DE602007014042 D1	20110601	DE200760014042T	20070521
EP2029960 A1	20090304	EP20070784570	20070521
EP2029960 B1	20110420	EP20070784570	20070521
PE06202008 A1	20080517	PE20070000700	20070606
US2010288149 AA	20101118	US20070303782	20070521
US8955441 BB	20150217	US20070303782	20070521
WO07143759 A1	20071213	WO2007ZA00027	20070521
ZA200810183 A	20100331	ZA20080010183	20081201

Priority:

ZA20060004731 20060609 WO2007ZA00027 20070521 ZA20080010183 20081201

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Inventor(s): CRAIG CHARLES SCHLENTER

Agent(s): PHILLIPS ORMONDE FITZPATRICK; GOWLING LAFLEUR HENDERSON LLP; ALESSANDRI; HACKNEY NIGEL JOHN ET AL; HACKNEY NIGEL JOHN; SCHMEISER OLSEN AND WATTS; SCHMEISER OLSEN AND WATTS LLP; MCCALLUM RADEMEYER AND FREIMOND ET AL

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

5) Family number: 42077557 (WO08094060A2)

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Title: SYSTEM FOR PROGRAMMED INITIATION OF ELECTRICAL DETONATOR NETWORKS

Abstract: System consists of the following: an initiating device (UI) as a machine for initiation of the electrical detonator network with programmable delay times. Delay times are set by hexadecimal switches and the set values of delays can be read out visually of each UI individually. Connection of the 16 UIs with the single control and supply device (UUP) is provided. Each UI is connected by five-wire connection for supplying electrical power from 12 V, 1.3 Ah battery in the UUP. The control and supply device has a DC-DC converter for supplying electrical power for initiation having voltage $U_c = 350$ V to the condensers in the UI.

Classifications:

International (IPC 8-9): F42C15/40 F42D1/055 (Advanced/Invention);

F42D1/00 (Core/Invention)

CPC: F42D1/055

European: F42D1/055

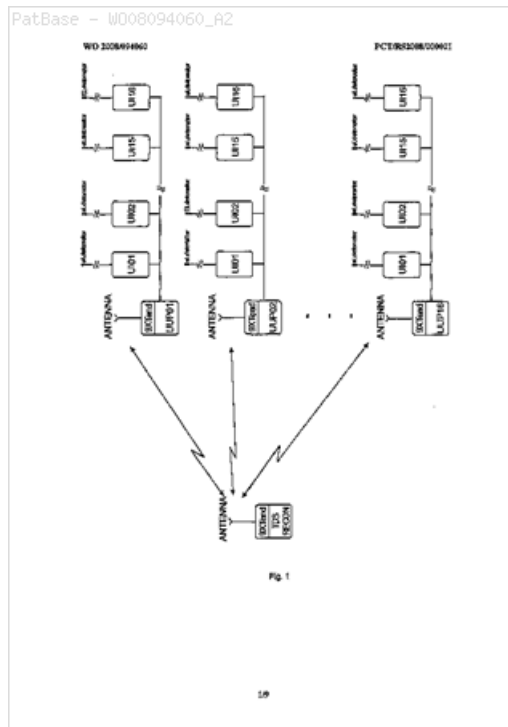


Fig. 1

19

Family:

Publication number	Publication date	Application number	Application date
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RS49942 B	20080929	RS20070000036	20070130
WO08094060 A2	20080807	WO2008RS00001	20080108
WO08094060 A3	20081002	WO2008RS00001	20080108

Priority:

RS20070000036 20070130 YU20070000036 20070130

Probable Assignee: KRICAK LAZAR**Assignee(s):** (std): KRICAK LAZAR ; KRUNIC PETAR ; RAUBAL DARKO**Inventor(s):** (std): KRICAK LAZAR ; KRUNIC PETAR ; RAUBAL DARKO**Agent(s):** KRICAK LAZAR

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW