

(19)



Europäisches Patentamt
European Patent Office
Office européen des brevets



(11) Publication number:

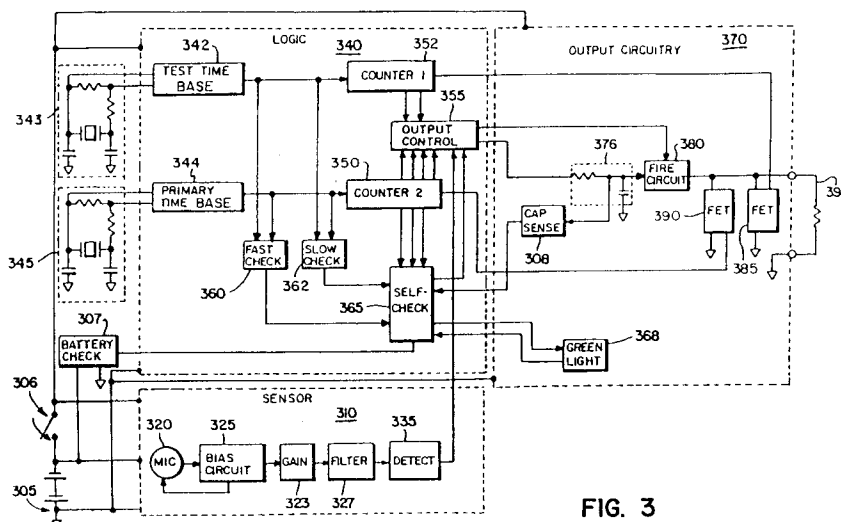
0 458 178 A3

(12)

EUROPEAN PATENT APPLICATION(21) Application number: **91107842.6**(51) Int. Cl.⁵: **F42D 1/05, F42C 13/06**(22) Date of filing: **15.05.91**(30) Priority: **21.05.90 US 525929**(43) Date of publication of application:
27.11.91 Bulletin 91/48(84) Designated Contracting States:
AT BE CH DE DK ES FR GB GR IT LI LU NL SE(88) Date of deferred publication of the search report:
21.10.92 Bulletin 92/43(71) Applicant: **ALLIANT TECHSYSTEMS INC.**
5901 Lincoln Drive
Edina, Minnesota 55436(US)(72) Inventor: **Haglund, Steven A. 14310 Mount**
Terrace**Minnetonka****Minnesota 55345(US)**Inventor: **Kurschner, Dennis L.****13001 Muriel Road Minnetonka****Minnesota 55343(US)**Inventor: **Paulson, Kenneth W.****13875 Chestnut Drive, 305****Eden Prairie Minnesota 55438(US)**(74) Representative: **Altenburg, Udo, Dipl.-Phys. et**
al**Patent- und Rechtsanwälte****Bardehle-Pagenberg-Dost-Altenburg****Frohwitter-Geissler & Partner Postfach 86 06****20****W-8000 München 86(DE)**(54) **Autonomous acoustic detonation device.**

(57) An autonomous detonation device comprising an acoustic sensor, a logic circuit, and an output circuit. The invention is capable of discriminating the acoustic signal of an explosion of a primary charge such

that it will detonate an explosive shortly thereafter. The invention further incorporates a delay system for safety purposes.

**FIG. 3**



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number

EP 91 10 7842

DOCUMENTS CONSIDERED TO BE RELEVANT

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
A	US-A-4 081 785 (RAVIS) * abstract; figure 1 * ---	1, 14	F42C13/06 F42D1/05 F42C13/06
A, P	EP-A-0 375 872 (KRUPP ATLAS ELEKTRONIK GMBH) * abstract; figure 1 * ---	1, 14	
A	FR-A-2 495 762 (DIEHL GMBH & CO) * claim 1; figure 2 * ---	1, 14	
A	US-A-4 301 735 (MENNE) * figure 1 * -----	1, 14	
			TECHNICAL FIELDS SEARCHED (Int. Cl.5)
			F42C F42D
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 26 AUGUST 1992	Examiner Onillon C.G.A.
CATEGORY OF CITED DOCUMENTS			
X : particularly relevant if taken alone		T : theory or principle underlying the invention	
Y : particularly relevant if combined with another document of the same category		E : earlier patent document, but published on, or after the filing date	
A : technological background		D : document cited in the application	
O : non-written disclosure		L : document cited for other reasons	
P : intermediate document		* : member of the same patent family, corresponding document	