## (12)

## **EUROPEAN PATENT APPLICATION**

- (88) Date of publication A3: 30.07.1997 Bulletin 1997/31
- (43) Date of publication A2: 26.02.1997 Bulletin 1997/09
- (21) Application number: 96113336.0
- (22) Date of filing: 20.08.1996
- (84) Designated Contracting States: **DE GB**
- (30) Priority: 22.08.1995 JP 213839/95
- (71) Applicant: SEIKO EPSON CORPORATION Shinjuku-ku Tokyo 163-08 (JP)
- (72) Inventors:
  - Takamizawa, Yuji,
     c/o Seiko Epson Corporation
     Suwa-shi, Nagano-ken, 392 (JP)

(51) Int. Cl.<sup>6</sup>: **B41J 19/18**, B41J 19/20, B41J 29/38

- Teradaira, Mitsuaki,
   c/o Seiko Epson Corporation
   Suwa-shi, Nagano-ken, 392 (JP)
- Aruga, Kazuhisa,
   c/o Seiko Epson Corporation
   Suwa-shi, Nagano-ken, 392 (JP)
- (74) Representative: Hoffmann, Eckart, Dipl.-Ing.
   Patentanwalt,
   Bahnhofstrasse 103
   82166 Gräfelfing (DE)

#### (54) Printing apparatus and initialization method thereof

(57) Disclosed are a printing apparatus and a method of initializing it which allow to prevent loss of print data due to print operation malfunction after the completion of the initialization. This is achieved by detecting error conditions related to the motion of a print head during the initialization. In the initialization process of the print head (3) is moved until it is detected by a reference position detector (16) located at the left edge of a printable area. Then the print head (3) is moved over the entire printable area to its rightmost position (37). By checking whether or not the print head has moved correctly, it is possible to detect any error conditions relating to the motion of print head (3) prior to printing.

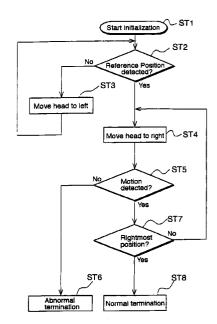


FIG. 4



# **EUROPEAN SEARCH REPORT**

Application Number EP 96 11 3336

Category	Citation of document with in of relevant pas	dication, where appropriate,	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
Х	EP 0 607 871 A (CANO * column 1, line 37 * column 15, line 4	ON KK) 27 July 1994		B41J19/18 B41J19/20 B41J29/38
A	figures 21-27 *		16	
A	1994	JAPAN M-1720), 12 December SEIKO EPSON CORP), 13	1-6,9-13	
A	1991 * abstract *	NORIAKI ET AL) 2 July 2 - column 12, line 46;	1,9	
A	PATENT ABSTRACTS OF JAPAN  vol. 008, no. 073 (M-287), 5 April 1984  JP 58 219079 A (NIPPON DENKI KK), 20  December 1983,  * abstract *		1,9	TECHNICAL FIELDS SEARCHED (Int.Cl.6)
A	PATENT ABSTRACTS OF JAPAN vol. 014, no. 256 (M-0980), 4 June 1990 & JP 02 072984 A (ALPS ELECTRIC CO LTD), 13 March 1990, * abstract *		1,9	
A	PATENT ABSTRACTS OF vol. 012, no. 142 ( & JP 62 264981 A ( CO LTD), 17 Novembe * abstract *	M-692), 30 April 1988 KONISHIROKU PHOTO IND	1,9	
		-/		
	The present search report has b	een drawn up for all claims		
	Place of search	Date of completion of the search	<u> </u>	Examiner
	BERLIN	28 May 1997	Nie	lsen, M
Y: par doo A: teo O: no	CATEGORY OF CITED DOCUME! rticularly relevant if taken alone rticularly relevant if combined with and cument of the same category thnological background n-written disclosure ermediate document	E : earlier patent do after the filing d other D : document cited i L : document cited if	cument, but publ ate in the application or other reasons	ished on, or



# **EUROPEAN SEARCH REPORT**

Application Number EP 96 11 3336

<u>]</u>	DOCUMENTS CONSII	DERED TO BE RELEV	ANT		
Category	Citation of document with in- of relevant pas		Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)	
A	PATENT ABSTRACTS OF vol. 011, no. 392 (N 1987 & JP 62 158070 A (S July 1987, * abstract *	1-653), 22 December	1,9		
A	EP 0 287 804 A (HONE October 1988 * abstract * * column 4, line 48		* 1,9		
A	EP 0 641 117 A (CANO * abstract *	ON KK) 1 March 1995	1,9		
				TECHNICAL FIELDS SEARCHED (Int.Cl.6)	
	The present search report has b	een drawn up for all claims			
	Place of search	Date of completion of the sea	rch	Examiner	
	BERLIN	28 May 1997	Nie	elsen, M	
Y: pai do A: tec O: no	CATEGORY OF CITED DOCUMENT rticularly relevant if taken alone rticularly relevant if combined with and cument of the same category chnological background in-written disclosure termediate document	E: earlier par after the i ther D: document L: document	T: theory or principle underlying the invention E: earlier patent document, but published on, or after the filing date D: document cited in the application L: document cited for other reasons  &: member of the same patent family, corresponding document		