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Our Ref.: 4105-57

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Commissioner of Patents
P.O. Box 1450
Alexandria, VA 22313-1450

To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.

1. Name of conveying party(ies): Jun FUNAKI		2. Name and address of receiving party(ies): Name: Pioneer Corporation Internal Address: Street Address: 4-1, Meguro 1-chome, Meguro-ku City: Tokyo State/Country: Japan Zip:	
Additional name/s of conveying party/ies attached? <input type="checkbox"/>		Additional name/s & address/es attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
3. Nature of conveyance: <input checked="" type="checkbox"/> Assignment <input type="checkbox"/> Merger <input type="checkbox"/> Security Assignment <input type="checkbox"/> Change of Name <input type="checkbox"/> Other			
Execution Date: 7/21/2005			
4. Application number(s) or patent number(s): A. Patent Application No(s). (1) 11/158,325 (2) (3) Additional numbers attached <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		B. Patent No(s). (1) (2) (3)	
5. Name and address of party to whom correspondence concerning document should be mailed: Name: Arthur R. Crawford Internal Address: Street Address: Nixon & Vanderhye P.C. 901 North Glebe Road 11th Floor City: Arlington State: VA Zip: 22203		6. Total number of applications & patents involved: 1 7. Total fee (37 CFR 3.41) (8021) \$ 40.00 <input checked="" type="checkbox"/> CREDIT CARD <input type="checkbox"/> Authorized to be charged to deposit account #14-1140 8. The Commissioner is hereby authorized to charge any deficiency in the fee(s) filed, or asserted to be filed, or which should have been filed herewith (or with any paper thereafter filed in this application by this firm) to our Account No. 14-1140.	
DO NOT USE THIS SPACE			
9. Statements and signature. To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. Arthur R. Crawford Name of Person Signing Reg. No. 25,327 [Signature] Signature August 8, 2005 Date Total number of pages including original cover sheet, attachments, and document: [3]			

08/10/2005 MBEYENE1 00000106 11158325

05 FC:8021

40.00 OP

ASSIGNMENT OF PATENT APPLICATION

(Inventors) Jun FUNAKI of Saitama, Japan

In consideration of the sum of one dollar (\$1.00) and other good and valuable considerations paid to each of the undersigned, the undersigned agree(s) to assign, and hereby does assign, transfer and set over to

(Assignee)
(Address)

PIONEER CORPORATION
(of 4-1, Meguro 1-chome, Meguro-ku, Tokyo, Japan

(Other
Countries)
(Title)

(hereinafter designated as the Assignee) the undersigned's entire right, title and interest for the United States, its territories, dependencies and possessions, and for the country of

(in the invention, and all application for patent and any Letters Patent which may be granted therefore, known as TACTILE DISPLAY DEVICE AND TOUCH PANEL
(Case No) APPARATUS WITH TACTILE DISPLAY FUNCTION

for which the undersigned has (have) executed on even date herewith an application for patent in the United States of America or, if not on even date, then has executed (on or has already filed in
(U.S. appln. Serial No. 11/158,325 filed on).
The undersigned acknowledges an obligation of assignment of this invention to said assignee at the time the invention was made.

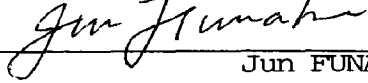
The undersigned agree(s) to execute all papers and documents necessary in connection with the application or any interference which may be declared and any continuing or divisional applications thereof and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient and further to perform any act which may be necessary in connection with claims or provisions of the International Convention for Protection of Industrial Property or similar agreements.

The undersigned agree(s) to perform all affirmative acts which may be necessary to obtain a grant of a valid United States patent to the Assignee.

The undersigned hereby authorize(s) and request(s) the Commissioner of Patents to issue any and all Letters Patent of the United States resulting from said application or any division or divisions or continuing applications thereof to the said Assignee, as Assignee of the entire interest, and hereby covenants that he has (they have) full right to convey the entire interest herein assigned, and that he has (they have) not executed and will not execute, any agreement in conflict herewith.

The undersigned hereby grant(s) the firm of NIXON & VANDERHYE P.C. the power to insert on this assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent Office for recordation of this document. It is understood and agreed that ASSIGNEE'S attorneys Nixon & Vanderhye P.C. have represented only ASSIGNEE and will continue to represent only ASSIGNEE with respect to this invention.

In witness whereof, executed by the undersigned on the date(s) opposite the undersigned signature(s).

Date <u>21/07/2005</u>	Signature of inventor	(<u></u> Jun FUNAKI
Date _____	Signature of inventor	(_____
Date _____	Signature of inventor	(_____
Date _____	Signature of inventor	(_____
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Witnessed by: _____	Date _____
Witnessed by: _____	Date _____
Witnessed by: _____	Date _____