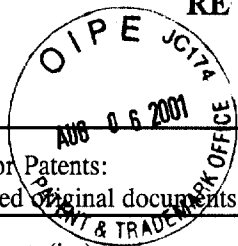


08-14-2001

8-601



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EET

Attorney Docket No.: 041514-5118

To the Commissioner for Patents:  
Please record the attached original documents or copy thereof.

ATTN: BOX ASSIGNMENT

1. Name of conveying party(ies):

- |                        |                      |
|------------------------|----------------------|
| 1. Takao SHIMAMURA     | 5. Koichi KIKUCHI    |
| 2. Takashi SASAKI      | 6. Shinya HONJOU     |
| 3. Kenichi TAKAHASHI   | 7. Takashi SUZUKI    |
| 4. Yoshihiro HASHIZUKA | 8. Hideaki YOSHIMURA |

Additional name(s) of conveying party(ies) attached?  
\_ Yes  No

2. Name and address of receiving party(ies):

Name: PIONEER CORPORATION

Internal Address:

Street Address: 4-1, Meguro 1-chome, Meguro-ku,  
Tokyo, Japan

City: \_\_\_\_\_  
State: \_\_\_\_\_ Zip: \_\_\_\_\_

Additional name(s) & address(es) attached?  
\_ Yes  No

3. Nature of conveyance:

- |  |                  |
|--|------------------|
| <input checked="" type="checkbox"/> Assignment | _ Merger         |
| _ Security Agreement                           | _ Change of Name |
| _ Other _____                                  |                  |

Execution Date: June 11, 2001, June 11, 2001, June 12, 2001,  
June 11, 2001, June 11, 2001, June 11, 2001,  
June 11, 2001 and June 11, 2001

4. Application number(s) or patent number(s):

If this document is being filed together with a new application the execution date of the application is:

- |   |                  |
|---|------------------|
| A. Patent Application No.(s): <u>09/836,456</u> | B. Patent No.(s) |
|---|------------------|

Additional numbers attached: \_ Yes  No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: John G. Smith

Internal Address: Customer No. 009629  
Morgan, Lewis & Bockius LLP

Street Address: 1800 M Street, N.W.  
City: Washington State: D.C. Zip: 20036

6. Total number of applications and patents involved: 1

7. Total fee (37 C.F.R §3.41): \$40.00  
 Enclosed  
\_ Authorized to be charged to deposit account 50-0310

8. Deposit account number: 50-0310  
Attach duplicate of page if paying by deposit account

9. Statement 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.

\_\_\_\_\_  
John G. Smith  
Name of Person Signing  
Reg. No. 33,818

\_\_\_\_\_  
  
Signature

\_\_\_\_\_  
August 6, 2001  
Date

Total number of pages including cover sheet, attachments and documents: 3

08/08/2001 MBERHE 00000063 09836456  
03 FC:581 40.00 DP

ASSIGNMENT

In consideration of the sum of ten dollars (\$10.00) and other good and valuable consideration paid to each of the undersigned, the undersigned agree to assign, and hereby do assign, transfer, and set over to:

Pioneer Corporation

having the address:

4-1, Meguro 1-chome, Meguro-ku, Tokyo, Japan

(hereinafter designated as the "ASSIGNEE") the entire right, title, and interest for the United States and all foreign countries (including protection in foreign countries via the Patent Cooperation Treaty), in the invention, and all applications for patent and any Letters Patent which may be granted therefor, the application being known by the Title:

SERVO CONTROL APPARATUS FOR OPTICAL DISC PLAYER

for which application for Letters Patent of the United States was executed on even date herewith unless otherwise indicated below:

filed on April 18, 2001,

serial No. 09/836,456

1. The undersigned agree to execute all papers necessary in connection with the application 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.

2. The undersigned agree to execute all papers necessary in connection with any interference which may be declared concerning this application or continuation or division thereof and to cooperate with the ASSIGNEE in every way possible in obtaining evidence and going forward with such interference.

3. The undersigned agree to execute all papers and documents and 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.

4. The undersigned agree to perform all affirmative acts which may be necessary to obtain a grant of a valid United states patent to the ASSIGNEE.

5. The undersigned hereby authorize and request the commissioner of Patents in the United States and the appropriate national or regional authority in each foreign country to issue any and all Letters Patents 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 they have full right to convey the entire interest herein assigned, and that they have not executed and will not execute, any agreement in conflict herewith.

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

The undersigned hereby authorize the firm of

MORGAN LEWIS & BOCKIUS LLP at the address of  
1800 M Street, N.W., Washington, D.C. 20036-5869, U.S.A.

to insert hereon any further identification necessary or desirable for recordation of this document.

June 11, 2001  
Date

Takao Shimamura  
Typed Name: Takao SHIMAMURA

June 11, 2001  
Date

Takashi Sasaki  
Typed Name: Takashi SASAKI

June 12, 2001  
Date

Kenichi Takahashi  
Typed Name: Kenichi TAKAHASHI

June 11, 2001  
Date

Yoshihiro Hashizuka  
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June 11, 2001  
Date

Koichi Kikuchi  
Typed Name: Koichi KIKUCHI

June 11, 2001  
Date

Shinya Honjou  
Typed Name: Shinya HONJOU

June 11, 2001  
Date

Takashi Suzuki  
Typed Name: Takashi SUZUKI

June 11, 2001  
Date

Hideaki Yoshimura  
Typed Name: Hideaki YOSHIMURA