

## PATENT ASSIGNMENT

Electronic Version v1.1  
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| SUBMISSION TYPE:                                                                                                                                                                                                                                                                                                                              | NEW ASSIGNMENT                       |                |                     |            |                |            |              |            |                |            |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|----------------|---------------------|------------|----------------|------------|--------------|------------|----------------|------------|--|
| NATURE OF CONVEYANCE:                                                                                                                                                                                                                                                                                                                         | ASSIGNMENT                           |                |                     |            |                |            |              |            |                |            |  |
| CONVEYING PARTY DATA                                                                                                                                                                                                                                                                                                                          |                                      |                |                     |            |                |            |              |            |                |            |  |
| <table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Yoshihiro SHIROISHI</td> <td>02/07/2012</td> </tr> <tr> <td>Hiroshi FUKUDA</td> <td>02/09/2012</td> </tr> <tr> <td>Ikuya TAGAWA</td> <td>02/06/2012</td> </tr> <tr> <td>Tomohiro OKADA</td> <td>02/06/2012</td> </tr> </tbody> </table> | Name                                 | Execution Date | Yoshihiro SHIROISHI | 02/07/2012 | Hiroshi FUKUDA | 02/09/2012 | Ikuya TAGAWA | 02/06/2012 | Tomohiro OKADA | 02/06/2012 |  |
| Name                                                                                                                                                                                                                                                                                                                                          | Execution Date                       |                |                     |            |                |            |              |            |                |            |  |
| Yoshihiro SHIROISHI                                                                                                                                                                                                                                                                                                                           | 02/07/2012                           |                |                     |            |                |            |              |            |                |            |  |
| Hiroshi FUKUDA                                                                                                                                                                                                                                                                                                                                | 02/09/2012                           |                |                     |            |                |            |              |            |                |            |  |
| Ikuya TAGAWA                                                                                                                                                                                                                                                                                                                                  | 02/06/2012                           |                |                     |            |                |            |              |            |                |            |  |
| Tomohiro OKADA                                                                                                                                                                                                                                                                                                                                | 02/06/2012                           |                |                     |            |                |            |              |            |                |            |  |
| RECEIVING PARTY DATA                                                                                                                                                                                                                                                                                                                          |                                      |                |                     |            |                |            |              |            |                |            |  |
| Name:                                                                                                                                                                                                                                                                                                                                         | Hitachi, Ltd.                        |                |                     |            |                |            |              |            |                |            |  |
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| City:                                                                                                                                                                                                                                                                                                                                         | Tokyo                                |                |                     |            |                |            |              |            |                |            |  |
| State/Country:                                                                                                                                                                                                                                                                                                                                | JAPAN                                |                |                     |            |                |            |              |            |                |            |  |
| PROPERTY NUMBERS Total: 1                                                                                                                                                                                                                                                                                                                     |                                      |                |                     |            |                |            |              |            |                |            |  |
| <table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>13401884</td> </tr> </tbody> </table>                                                                                                                                                                     | Property Type                        | Number         | Application Number: | 13401884   |                |            |              |            |                |            |  |
| Property Type                                                                                                                                                                                                                                                                                                                                 | Number                               |                |                     |            |                |            |              |            |                |            |  |
| Application Number:                                                                                                                                                                                                                                                                                                                           | 13401884                             |                |                     |            |                |            |              |            |                |            |  |
| CORRESPONDENCE DATA                                                                                                                                                                                                                                                                                                                           |                                      |                |                     |            |                |            |              |            |                |            |  |
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| <i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via US Mail.</i>                                                                                                                                                                                                                         |                                      |                |                     |            |                |            |              |            |                |            |  |
| Correspondent Name:                                                                                                                                                                                                                                                                                                                           | ANTONELLI, TERRY, STOUT & KRAUS, LLP |                |                     |            |                |            |              |            |                |            |  |
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| ATTORNEY DOCKET NUMBER:                                                                                                                                                                                                                                                                                                                       | 520.52275X00                         |                |                     |            |                |            |              |            |                |            |  |
| NAME OF SUBMITTER:                                                                                                                                                                                                                                                                                                                            | Melvin Kraus                         |                |                     |            |                |            |              |            |                |            |  |
| Total Attachments: 1<br>source=52275X00ASN#page1.tif                                                                                                                                                                                                                                                                                          |                                      |                |                     |            |                |            |              |            |                |            |  |

OP \$40.00 13401884

# ASSIGNMENT

( 譲 渡 証 )

As a below named inventor, I hereby declare that:

IN CONSIDERATION of the sum of One Dollar (\$1.00) or the equivalent thereof, and other good and valuable consideration paid to me citizen of Japan by Hitachi, Ltd., a corporation organized under the laws of Japan, located at 6-6, Marunouchi 1-chome, Chiyoda-ku, Tokyo, Japan, receipt of which is hereby acknowledged I do hereby sell and assign to said Hitachi, Ltd., its successors and assigns, all my right, title and interest, in and for the United States of America, in and to

## MAGNETIC STORAGE APPARATUS, HEAD DRIVE CONTROLLER, AND HEAD DRIVE CONTROL METHOD

invented by me (if only one is named below) or us (if plural inventors are named below) and described in the application for United States Letters Patent therefor, executed on even date herewith, and all United States Letters Patent which may be granted therefor, and all divisions, continuations and extensions thereof, the said interest being the entire ownership of the said Letters Patent when granted, to be held and enjoyed by said Hitachi, Ltd., its successors, assigns or other legal representatives, to the full end of term for which said Letters Patent may be granted as fully and entirely as the same would have been held and enjoyed by me or us if this assignment and sale had not been made;

And I hereby agree to sign and execute any further documents or instruments which may be necessary, lawful, and proper in the prosecution of the above-named application or in the preparation and prosecution of any continuing, continuation-in-part, substitute, divisional, renewal, reviewed or reissue applications or in any amendment, extension, or interference proceedings, or otherwise to secure the title thereto in said assignee;

And I do hereby authorize and request the Commissioner of Patents to issue said Letters Patent to said Hitachi, Ltd.

Signed on the date(s) indicated aside our signatures:

INVENTOR(S)  
(発明者フルネームサイン)

Date Signed  
(署名日)

1) Yoshihiro Shiroishi Yoshihiro SHIROISHI

2/7/2012

2) Hiroshi Fukuda Hiroshi FUKUDA

2/9/2012

3) Ikuya Tagawa Ikuya TAGAWA

2/6/2012

4) Tomohiro Okada Tomohiro OKADA

2/6/2012