A housing structure is provided for supporting vertically stacked horizontally extending arrays of forwardly removable disk drives in a very compact arrangement. The housing has spaced apart vertical walls with opposite side surface grooves having laterally projecting elastomeric bumper members therein. Pairs of front and rear disk drives are joined with elongated support plates disposed on their opposite sides and having spaced apart sloping side edge portions. The support plates are slidingly received in the wall grooves and wedgingly engage the resilient bumpers in a manner restraining movement of the inserted disk drives along three mutually perpendicular axes. Latch structures lock the inserted drives in the housing and releasably maintain resilient insertion forces on the tandem drive assemblies. A fan system draws cooling air through vertical gaps between the drives, and operational drive heat is conducted via the support plates into the vertical housing walls.
Published:
— with international search report
— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report: 18 January 2007

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.
INTERNATIONAL SEARCH REPORT

A. CLASSIFICATION OF SUBJECT MATTER

INV. G11B33/12 G11B33/14 G11B33/02

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

G11B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EP0-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
<thead>
<tr>
<th>Category*</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td></td>
<td>1-9, 23-31</td>
</tr>
<tr>
<td>A</td>
<td>US 5 343 357 A (DRISCOLL ET AL) 30 August 1994 (1994-08-30) column 5, line 28 - line 53; figure 16</td>
<td>1,15,26</td>
</tr>
</tbody>
</table>

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier document but published on or after the international filing date
"L" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
"*" document published prior to the international filing date but later than the priority date claimed

Further documents are listed in the continuation of Box C. See patent family annex.

Date of the actual completion of the international search

7 April 2006

Date of mailing of the international search report

09.11.2006

Name and mailing address of the ISA/

European Patent Office, P.B. 5618 Patentlaan 2
NL-2289 HV Bilthoven
Tel: (+31-70) 540-2040, Tx. 31 651 epi nl
Fax: (+31-70) 340-3018

Authorized officer

Sozzi, Roberto

Form PCT/ISA/210 (second sheet) (April 2005)
**INTERNATIONAL SEARCH REPORT**

**Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)**

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. □ Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:

2. □ Claims Nos.: because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:

3. □ Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

**Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)**

This International Searching Authority found multiple inventions in this international application, as follows:

```plaintext
see additional sheet
```

1. □ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.

2. □ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. □ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:

4. □ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

   1-9, 15-31

**Remark on Protest**

- □ The additional search fees were accompanied by the applicant's protest.
- □ No protest accompanied the payment of additional search fees.
This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-9,15-31

   electronic apparatus comprising a housing and an electronic package provided with parallel support members adapted to slide into grooves of the housing.

   ---

2. claims: 10-14

   electronic apparatus comprising a housing, an electronic package, an elongated spring structure and a latch structure secured to a longitudinally central portion of said spring structure.

   ---
### INTERNATIONAL SEARCH REPORT

**Information on patent family members**

<table>
<thead>
<tr>
<th>Patent document cited in search report</th>
<th>Publication date</th>
<th>Patent family member(s)</th>
<th>Publication date</th>
</tr>
</thead>
<tbody>
<tr>
<td>US 2620650552 A1</td>
<td>02-05-2002</td>
<td>NONE</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>AU 4167093 A</td>
<td>03-03-1994</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CA 2100938 A1</td>
<td>27-02-1994</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DE 69326728 D1</td>
<td>18-11-1999</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DE 69326728 T2</td>
<td>08-06-2000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EP 0584979 A2</td>
<td>02-03-1994</td>
</tr>
<tr>
<td></td>
<td></td>
<td>JP 2643784 B2</td>
<td>20-08-1997</td>
</tr>
<tr>
<td></td>
<td></td>
<td>JP 6257262 A</td>
<td>22-09-1994</td>
</tr>
<tr>
<td></td>
<td></td>
<td>US 5247427 A</td>
<td>21-09-1993</td>
</tr>
<tr>
<td>US 5621693 B1</td>
<td>16-09-2003</td>
<td>NONE</td>
<td></td>
</tr>
<tr>
<td>US 2004189163 A1</td>
<td>30-09-2004</td>
<td>TW 598255 Y</td>
<td>01-06-2004</td>
</tr>
</tbody>
</table>