1.0 Maximum Capacity: 524,288 Bits

1.1 Number of Discs: One (7” diameter)

1.2 Recording Diameters: 6.5” Maximum
4.9” Minimum

1.3 Tracks/Radial Inch: 40

1.4 Track Width: .015”

1.5 Bits/Track: 8129 maximum

1.6 Maximum Packing Density: 532 Bits/Inch

1.7 Number of Tracks 66 as follows:
1.7.1 2 Timing Tracks
1.7.2 64 General Storage Tracks
1.7.3 Registers, if required, will reduce the number of general storage tracks by approximately 8 tracks per register

1.8 Registers:
1.8.1 Minimum Spacing at Maximum Density: 64 Bits

1.9 Magnetic Heads

1.9.1 Half Coil Inductance 150 Microhenries Maximum
30 Microhenries Minimum

1.9.2 Unbalance between the two half coils of each head will be less than 5%

1.9.3 Gap Width: .00025”

1.9.4 Write Current required for full saturation:

Probable Range: 60 to 150 Milli-ampere

1.9.5 Playback Variation: 2 to 1

1.9.6 Amplitude Modulation:

as defined by the formula

\[
\% \text{ Mod} = \frac{2 (\text{Max} - \text{Min})}{\text{Max} + \text{Min}} \times 100
\]

1.10 Type of Recording: Phase Modulation

1.11 Noise:

1.11.1 Random noise from any D.C. erased track will be less than 10% of the minimum playback amplitude

1.12 Drive System: Integral Induction Motor (Synchronous on special application)

1.12.1 Speed: 900 RPM, 1800 RPM or 3600 RPM

1.12.2 Power Supply Required: 60 cps 115 V Single Phase
60 cps 220 V Single Phase
60 cps 208 V Three Phase

1.12.3 Starting Device: Single Phase Drives require start and run capacitors and time delay relay

1.13 Bearings:

1.13.1 Super Precision Grade 7 Preloaded Ball Bearings are used with a design life of 5 years.

1.13.2 Bearings are grease lubricated for the lifetime of the bearings

1.14 Physical Package:

1.14.1 Axis of Rotation: Vertical

1.14.2 Overall Size: 11” dia. x 11” high

1.14.3 Total Weight: 45 lbs.

1.14.4 Isolator Mounts: 3 Mounts providing 90% Isolation at the rotational speed frequency

1.14.5 Finish: — Structure: Golden Iridite

1.14.5 Finish: — Dust Cover: Ivory Enamel

1.15 Environmental Limitations: — (Operating)

1.15.1 Ambient Temperature: 50°F to 100°F

1.15.2 Thermal Shock: No restriction within ambient range

1.15.3 Humidity: 0 to 95%

1.15.4 Dust Cover Removal: Restricted to a clean area

1.16 Environmental Limitations: (Non-Operating)

1.16.1 Ambient Temperature: 0°F to 180°F

1.16.2 Storage Time: One Year without relubrication of bearings
### Model #91-64 Disc Memory

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
<th>Value</th>
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<tbody>
<tr>
<td>1.0</td>
<td>Maximum Capacity</td>
<td>736,000</td>
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<tr>
<td>1.1</td>
<td>Number of Discs</td>
<td>One 9&quot; diameter</td>
</tr>
<tr>
<td>1.2</td>
<td>Recording Diameters</td>
<td>8.5&quot; maximum, 6.5&quot; minimum</td>
</tr>
<tr>
<td>1.3</td>
<td>Tracks/Radial Inch</td>
<td>32</td>
</tr>
<tr>
<td>1.4</td>
<td>Track Width</td>
<td>.015&quot;</td>
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<tr>
<td>1.5</td>
<td>Bits/Track</td>
<td>11,500 maximum</td>
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<td>1.6</td>
<td>Maximum Packing Density</td>
<td>533 bits/inch</td>
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<tr>
<td>1.7.1</td>
<td>Number of tracks</td>
<td>67 as follows: 64 data tracks</td>
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<tr>
<td>1.7.2</td>
<td>1 clock track (8192 bits)</td>
<td>67 as follows: 1 clock track (8192 bits)</td>
</tr>
<tr>
<td>1.7.3</td>
<td>1 synch track</td>
<td></td>
</tr>
<tr>
<td>1.7.4</td>
<td>1 register track</td>
<td></td>
</tr>
<tr>
<td>1.8</td>
<td>Registers</td>
<td></td>
</tr>
<tr>
<td>1.8.1</td>
<td>1 register track with spacing between read and write head to be approximately 800 bits.</td>
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<td>1.9</td>
<td>Magnetic heads</td>
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<tr>
<td>1.9.1</td>
<td>Half Coil Inductance</td>
<td>50 microhenries ±10%</td>
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<tr>
<td>1.9.2</td>
<td>Unbalance between the two half coils of each head will be less than 5%</td>
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<tr>
<td>1.9.3</td>
<td>Gap Width</td>
<td>.00025&quot;</td>
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<tr>
<td>1.9.4</td>
<td>Write Current required for full saturation</td>
<td>100 milliamperes maximum</td>
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<tr>
<td>1.9.5</td>
<td>Playback Amplitude</td>
<td>50 millivolts minimum</td>
</tr>
<tr>
<td>1.9.6</td>
<td>Amplitude Modulation</td>
<td>15% maximum</td>
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<tr>
<td>1.10</td>
<td>Type of Recording</td>
<td>Phase Modulation</td>
</tr>
<tr>
<td>1.11</td>
<td>Noise</td>
<td></td>
</tr>
<tr>
<td>1.11.1</td>
<td>Random noise from any DC erased track will be less than 10% of minimum playback amplitude</td>
<td></td>
</tr>
</tbody>
</table>

### Drive System
- **1.12.1 Speed:** 3600 RPM (Less 5% slip)
- **1.12.2 Power:** 115V, 60 CPS, single phase
- **1.12.3 Starting Device:** Single Phase Drives require start and run capacitors

### Bearings
- **1.13.1 Super Precision Grade 7 preloaded ball bearings are used with a design life of 10 years.**
- **1.13.2 Bearings are grease lubricated for the lifetime of the bearings**

### Physical Package
- **1.14.1 Axis of Rotation:** Vertical
- **1.14.2 Overall Size:** 13" diameter x 11" high
- **1.14.3 Total Weight:** 45 lbs.
- **1.14.4 Isolator Mounts:** 4 Mounts providing 90% isolation at the rotational speed frequency
- **1.14.5 Finish:** Golden Iridite (Structure)
- **1.14.6 Finish:** Ivory Enamel (Dust Cover)

### Environmental Limitations: (Operating)
- **1.15.1 Ambient Temperature:** 50°F to 100°F
- **1.15.2 Thermal Shock:** No restriction within ambient range
- **1.15.3 Humidity:** 0 to 95%
- **1.15.4 Dust Cover Removal:** No restriction within ambient range

### Environmental Limitations: (Non-Operating)
- **1.16.1 Ambient Temperature:** 0°F to 180°F
- **1.16.2 Storage Time:** One year without relubrication of bearings
### Model #134-512 Disc Memory

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<thead>
<tr>
<th>Section</th>
<th>Details</th>
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<tbody>
<tr>
<td>1.0 Maximum Capacity:</td>
<td>8,192,000 Bits</td>
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<tr>
<td>1.1 Number of Discs:</td>
<td>Four (13&quot; Diameter)</td>
</tr>
<tr>
<td>1.2 Recording Diameters:</td>
<td>12.5&quot; Maximum, 9.3&quot; Minimum</td>
</tr>
<tr>
<td>1.3 Tracks/Radial Inch:</td>
<td>40</td>
</tr>
<tr>
<td>1.4 Track Width:</td>
<td>.015&quot;</td>
</tr>
<tr>
<td>1.5 Bits/Track:</td>
<td>16,000 Maximum</td>
</tr>
<tr>
<td>1.6 Maximum Packing Density</td>
<td>548 Bits/Inch</td>
</tr>
<tr>
<td>1.7 Number of Tracks</td>
<td>516 as follows</td>
</tr>
<tr>
<td>1.7.1 4 Timing Tracks</td>
<td></td>
</tr>
<tr>
<td>1.7.2 512 General Storage Tracks</td>
<td></td>
</tr>
<tr>
<td>1.7.3 Registers, if required, will reduce the number of general storage tracks by approximately 4 tracks per register</td>
<td></td>
</tr>
<tr>
<td>1.8 Registers:</td>
<td></td>
</tr>
<tr>
<td>1.8.1 Minimum Spacing: at maximum density</td>
<td>64 Bits</td>
</tr>
<tr>
<td>1.9 Magnetic Heads</td>
<td>(To be specified for a particular application)</td>
</tr>
<tr>
<td>1.9.1 Half Coil Inductance:</td>
<td>100 Microhenries Maximum, 15 Microhenries Minimum</td>
</tr>
<tr>
<td>1.9.2 Unbalance between the two half coils of each head will be less than 5%</td>
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</tr>
<tr>
<td>1.9.3 Gapwidth:</td>
<td>.00025&quot;</td>
</tr>
<tr>
<td>1.9.4 Write current required for full saturation: Probable Range:</td>
<td>60 to 150 Milliamperes</td>
</tr>
<tr>
<td>1.9.5 Playback Variation:</td>
<td>3 to 1</td>
</tr>
<tr>
<td>1.9.6 Amplitude Modulation: as defined by the formula [ % \text{Mod} = \frac{2(\text{Max} - \text{Min})}{\text{Max} + \text{Min}} \times 100 ]</td>
<td>15% Maximum</td>
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<td>1.10 Type of Recording:</td>
<td>Phase Modulation</td>
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<tr>
<td>1.11 Noise:</td>
<td></td>
</tr>
<tr>
<td>1.11.1 Random noise from any DC erased track will be less than 10% of the minimum playback amplitude</td>
<td></td>
</tr>
<tr>
<td>1.11.2 Crosstalk between any head which is reading a register track or a clock track and any other head which is writing will be less than 10% of the minimum playback amplitude</td>
<td></td>
</tr>
<tr>
<td>1.12 Drive System:</td>
<td>Integral Induction Motor (Synchronous on Special Application)</td>
</tr>
<tr>
<td>1.12.1 Speed:</td>
<td>900 RPM, 1800 RPM or 3600 RPM</td>
</tr>
<tr>
<td>1.12.2 Power Supply Required:</td>
<td>60 cps 115 V Single Phase, 60 cps 220 V Single Phase, 60 cps 208 V Three Phase</td>
</tr>
<tr>
<td>1.12.3 Starting Device:</td>
<td>Single Phase Drives require start &amp; run capacitors and time delay relay</td>
</tr>
<tr>
<td>1.13 Bearings:</td>
<td></td>
</tr>
<tr>
<td>1.13.1 Super Precision Grade 7 Preloaded Ball Bearings are used with a design life of 10 years.</td>
<td></td>
</tr>
<tr>
<td>1.13.2 Bearings are grease lubricated for the lifetime of the bearings</td>
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<tr>
<td>1.14 Physical Package:</td>
<td>Vertical</td>
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<tr>
<td>1.14.1 Axis of Rotation:</td>
<td>17&quot; dia. x 17&quot; high</td>
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<tr>
<td>1.14.2 Overall Size:</td>
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<tr>
<td>1.14.3 Total Weight:</td>
<td>120 lbs.</td>
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<td>1.14.4 Isolator Mounts:</td>
<td>4 Mounts providing 90% isolation at the rotational speed frequency</td>
</tr>
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<td>1.14.5 Finish: Structure:</td>
<td>Golden Iridite</td>
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<tr>
<td>1.14.6 Finish: Dust Cover:</td>
<td>Ivory Enamel</td>
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<tr>
<td>1.15 Environmental Limitations: — (Operating)</td>
<td>Vertical</td>
</tr>
<tr>
<td>1.15.1 Ambient Temperature:</td>
<td>50°F to 100°F</td>
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<tr>
<td>1.15.2 Thermal Shock:</td>
<td>No Restriction within ambient range.</td>
</tr>
<tr>
<td>1.15.3 Humidity:</td>
<td>0 to 95%</td>
</tr>
<tr>
<td>1.15.4 Dust Cover Removal:</td>
<td>Restricted to a clean area</td>
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<tr>
<td>1.16 Environmental Limitations: (Non-operating)</td>
<td>Vertical</td>
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<tr>
<td>1.16.1 Ambient Temperature:</td>
<td>0°F to 180°F</td>
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<tr>
<td>1.16.2 Storage Time:</td>
<td>One Year without relubrication of bearings</td>
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<td>Model</td>
<td>No. of Discs &amp; Dia.</td>
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<td>TWO 13&quot;</td>
</tr>
<tr>
<td>134-512</td>
<td>FOUR 13&quot;</td>
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</table>
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A Division of General Instrument Corporation
13040 S. Cerise Avenue, Hawthorne, California 90250

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Jim Speckman (Indianapolis & So. Area)

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Mel Meacham (513-885-3327)

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TWX: 910-576-2861
Edward Grayden
Lonnis Flummer (Lonn)

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Danny Snow

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TWX: 602-949-0123
Paul Carter

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TWX: 716-235-2514
Ed Snyder

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Paul Carter

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Preston Neff (617-894-2233)
John Flynn (617-263-2585)

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Paul Carter

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Brogan Associates, Inc.
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Westbury, L. I., New York
Tel: 516-333-6683
TWX: 516-333-3723
Fred Korb (516-421-0029)
<table>
<thead>
<tr>
<th>State</th>
<th>Address Details</th>
<th>Tel.</th>
<th>TWX</th>
</tr>
</thead>
<tbody>
<tr>
<td>OHIO</td>
<td>G. &amp; H. Sales Company P. O. Box 37416</td>
<td>617-304-5187</td>
<td>313-577-1239</td>
</tr>
<tr>
<td></td>
<td>Cincinnati, Ohio 45237</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>G. &amp; H. Sales Company</td>
<td>513-885-3181</td>
<td>513-931-4360</td>
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<td></td>
<td>137 Lakeview Drive Dayton, Ohio</td>
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<tr>
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<td>G. &amp; H. Sales Company</td>
<td>617-894-3250</td>
<td>214-276-6337</td>
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<td></td>
<td>360 Fox Hill Drive Novelty, Ohio</td>
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<td></td>
<td>G &amp; H Sales Company</td>
<td>919-725-3612</td>
<td>710-825-6335</td>
</tr>
<tr>
<td></td>
<td>13600 Fielding Drive</td>
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<tr>
<td>PENNSYLVANIA</td>
<td>Brogan Associates, Inc. 69 Hickory Drive</td>
<td>919-725-3612</td>
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<tr>
<td></td>
<td>Pittsburgh, Pennsylvania</td>
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<td>Carter Associates, Inc. 13600 Fielding Drive</td>
<td>710-825-9635</td>
<td>301-825-9635</td>
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<tr>
<td></td>
<td>1 Cedar Boulevard Pittsburgh, Pennsylvania</td>
<td>301-585-3141</td>
<td>710-825-9635</td>
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<td>Bronwell Espy</td>
<td>710-324-0192</td>
<td>301-929-1489</td>
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<td>RHODE ISLAND</td>
<td>Brogan Associates, Inc. 1 Bala Avenue</td>
<td>617-567-4749</td>
<td>710-825-6335</td>
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<td>1 Bala Avenue Bala Cynwyd, Pennsylvania</td>
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<td>215-279-9910</td>
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<td>G. &amp; H. Sales Company</td>
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<td>69 Hickory Drive</td>
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<td>SOUTH CAROLINA</td>
<td>L. G. White &amp; Co., Inc.</td>
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<td>69 Hickory Drive</td>
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<td>WEST VIRGINIA</td>
<td>L. G. White &amp; Co., Inc.</td>
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<td>880 Bonfante Street</td>
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<td>WISCONSIN</td>
<td>Hamilton, Grayden &amp; Flemmer, Inc. Hamilton Road</td>
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<td>West of and including Oak Ridge</td>
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<td>P. O. Box 2356</td>
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<td>Winston-Salem, North Carolina 27102</td>
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<td>13040 So. Cerise Ave., Hawthorne, Calif. 90250</td>
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<td>213-679-3377 / 772-2351 / TWX 910-325-6203</td>
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