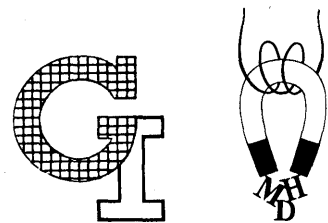


**TYPICAL DISC**

**SPECIFICATIONS**



**MAGNE-HEAD**

A Division of General Instrument Corporation

# MODEL #71-64 DISC MEMORY

- 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** (To be specified for a particular application)
- 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: (Depends on head selected)  
**Probable Range:** 60 to 150 Milli-amperes
  - 1.9.5 Playback Variation: 2 to 1
  - 1.9.6 Amplitude Modulation: 10% Maximum  
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
  - 1.14.6 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

<b>1.0 Maximum Capacity:</b>	736,000
<b>1.1 Number of Discs:</b>	One (9" diameter)
<b>1.2 Recording Diameters:</b>	8.5" maximum 6.5" minimum
<b>1.3 Tracks/Radial Inch:</b>	32
<b>1.4 Track Width:</b>	.015"
<b>1.5 Bits/Track:</b>	11,500 maximum
<b>1.6 Maximum Packing Density:</b>	533 bits/inch
<b>1.7 Number of tracks:</b>	67 as follows:
1.7.1 64 data tracks	
1.7.2 1 clock track (8192 bits)	
1.7.3 1 synch track	
1.7.4 1 register track	
<b>1.8 Registers:</b>	
1.8.1 1 register track with spacing between read and write head to be approximately 800 bits.	
<b>1.9 Magnetic heads</b>	
1.9.1 Half Coil Inductance	50 microhenries ± 10%
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:	100 milliamperes maximum
1.9.5 Playback Amplitude:	50 millivolts minimum
1.9.6 Amplitude Modulation:	15% maximum
<b>1.10 Type of Recording:</b>	Phase Modulation
<b>1.11 Noise:</b>	
1.11.1 Random noise from any DC erased track will be less than 10% of minimum playback amplitude	

<b>1.12 Drive System:</b>	Integral Induction Motor
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
<b>1.13 Bearings:</b>	
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	
<b>1.14 Physical Package:</b>	
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: — (Structure)	Golden Iridite
1.14.6 Finish: (Dust Cover)	Ivory Enamel
<b>1.15 Environmental Limitations: — (Operating)</b>	
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
<b>1.16 Environmental Limitations: (Non-Operating)</b>	
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

<b>1.0 Maximum Capacity:</b>	8,192,000 Bits
<b>1.1 Number of Discs:</b>	Four (13" Diameter)
<b>1.2 Recording Diameters:</b>	12.5" Maximum 9.3" Minimum
<b>1.3 Tracks/Radial Inch:</b>	40
<b>1.4 Track Width:</b>	.015"
<b>1.5 Bits/Track:</b>	16,000 Maximum
<b>1.6 Maximum Packing Density</b>	548 Bits/Inch
<b>1.7 Number of Tracks</b>	516 as follows
<b>1.7.1 4 Timing Tracks</b>	
<b>1.7.2 512 General Storage Tracks</b>	
<b>1.7.3 Registers, if required, will reduce the number of general storage tracks by approximately 4 tracks per register</b>	
<b>1.8 Registers:</b>	
<b>1.8.1 Minimum Spacing: at maximum density</b>	64 Bits
<b>1.9 Magnetic Heads</b>	(To be specified for a particular application)
<b>1.9.1 Half Coil Inductance:</b>	100 Microhenries Maximum 15 Microhenries Minimum
<b>1.9.2 Unbalance between the two half coils of each head will be less than 5%</b>	
<b>1.9.3 Gapwidth:</b>	.00025"
<b>1.9.4 Write current required for full saturation:</b>	(Depends on head selected)
<b>Probable Range:</b>	60 to 150 Milli-amperes
<b>1.9.5 Playback Variation:</b>	3 to 1
<b>1.9.6 Amplitude Modulation: as defined by the formula</b>	15% Maximum
	$\% \text{ Mod} = \frac{2 (\text{Max} - \text{Min})}{\text{Max} + \text{Min}} \times 100$
<b>1.10 Type of Recording:</b>	Phase Modulation
<b>1.11 Noise:</b>	
<b>1.11.1 Random noise from any DC erased track will be less than 10% of the minimum playback amplitude</b>	

<b>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.</b>	
<b>1.12 Drive System:</b>	Integral Induction Motor (Synchronous on Special Application)
<b>1.12.1 Speed:</b>	900 RPM, 1800 RPM or 3600 RPM
<b>1.12.2 Power Supply Required:</b>	60 cps 115 V Single Phase 60 cps 220 V Single Phase 60 cps 208 V Three Phase
<b>1.12.3 Starting Device:</b>	Single Phase Drives require start & run capacitors and time delay relay
<b>1.13 Bearings:</b>	
<b>1.13.1 Super Precision Grade 7 Preloaded Ball Bearings are used with a design life of 10 years.</b>	
<b>1.13.2 Bearings are grease lubricated for the lifetime of the bearings</b>	
<b>1.14 Physical Package:</b>	
<b>1.14.1 Axis of Rotation:</b>	Vertical
<b>1.14.2 Overall Size:</b>	17" dia. x 17" high
<b>1.14.3 Total Weight:</b>	120 lbs.
<b>1.14.4 Isolator Mounts:</b>	4 Mounts providing 90% isolation at the rotational speed frequency
<b>1.14.5 Finish: Structure:</b>	Golden Iridite
<b>1.14.6 Finish: Dust Cover:</b>	Ivory Enamel
<b>1.15 Environmental Limitations: — (Operating)</b>	
<b>1.15.1 Ambient Temperature:</b>	50°F to 100°F
<b>1.15.2 Thermal Shock:</b>	No Restriction within ambient range.
<b>1.15.3 Humidity:</b>	0 to 95%
<b>1.15.4 Dust Cover Removal:</b>	Restricted to a clean area
<b>1.16 Environmental Limitations: (Non-operating)</b>	
<b>1.16.1 Ambient Temperature:</b>	0°F to 180°F
<b>1.16.2 Storage Time:</b>	One Year without relubrication of bearings

	MODEL	No. OF DISCS & DIA.	MAX NUMBER DATA TRACKS	BITS PER TRACK MAX	TOTAL BIT CAPACITY	OUTSIDE DIMENSIONS DIA X HIGH	BIT DENSITY INNER TRACK	PRICE SINGLE UNITS	PRICE 10 TO 30 UNITS	PRICE 50 & UP
<b>SERIES 70</b>	71-64	ONE 7"	64	8192	524,288	11" X 11"	532 Bits/Inch	\$ 3,000	\$ 2,800	\$2,500
	71-128	ONE 7"	128	5200	665,600	11" X 11"	500 Bits/Inch	\$ 4,000	\$ 3,600	\$3,250
	72-256	TWO 7"	256	5200	1,331,200	11" X 14"	500 Bits/Inch	\$ 6,000	\$ 5,200	\$4,750
<b>SERIES 90</b>	91-64	ONE 9"	64	11500	736,000	13" X 11"	533 Bits/Inch	\$ 4,000	\$ 3,800	\$3,500
	91-128	ONE 9"	128	8800	1,126,400	13" X 11"	533 Bits/Inch	\$ 5,000	\$ 4,600	\$4,250
	92-256	TWO 9"	256	8800	2,252,800	13" X 14"	533 Bits/Inch	\$ 7,000	\$ 6,200	\$5,750
<b>SERIES 110</b>	111-64	ONE 11"	64	14895	953,280	15" X 11"	533 Bits/Inch	\$ 5,000	\$ 4,800	\$4,500
	111-128	ONE 11"	128	12200	1,561,600	15" X 11"	533 Bits/Inch	\$ 6,000	\$ 5,600	\$5,250
	112-256	TWO 11"	256	12200	3,123,200	15" X 14"	533 Bits/Inch	\$ 8,000	\$ 7,200	\$6,750
<b>SERIES 130</b>	131-64	ONE 13"	64	18200	1,164,800	17" X 11"	533 Bits/Inch	\$ 6,000	\$ 5,800	\$5,000
	131-128	ONE 13"	128	16000	2,048,000	17" X 11"	548 Bits/Inch	\$ 7,000	\$ 6,600	\$5,750
	132-256	TWO 13"	256	16000	4,096,000	17" X 14"	548 Bits/Inch	\$ 9,000	\$ 8,200	\$7,250
	134-512	FOUR 13"	512	16000	8,192,000	17" X 17"	548 Bits/Inch	\$13,000	\$11,400	\$9,500

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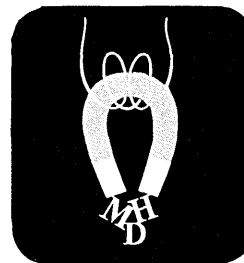
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