

## **SECTION VII**

### **PARTS LISTS AND SCHEMATIC/ASSEMBLY DRAWINGS**

#### **7.1 INTRODUCTION**

This section contains the illustrated parts lists, recommended spare parts lists, interconnect and programming array lists, and schematic/assembly drawings.

#### **7.2 ILLUSTRATED PARTS BREAKDOWN (IPB)**

Figures 7-1 through 7-7, used in conjunction with Tables 7-1 through 7-7, respectively, provide identification by Pertec part number of the mechanical and electrical components of the D3000 Series Disk Drives. Notations are made when parts do not apply to all model configurations.

#### **7.3 RECOMMENDED SPARE PARTS**

Table 7-8 provides a list of the recommended spare parts for the D3000 Series Disk Drives. The Customer should always furnish the model number and the serial number of the disk drive when ordering parts.

An additional recommended spare parts list containing the part number, description, current price for component parts, subassembly parts, and special tools is also available. This list can be obtained by providing the unit part number, from the ID label on the disk drive, to the Logistics Section, Pertec Division of Pertec Computer Corporation, 9600 Irondale Avenue, Chatsworth, CA 91311.

#### **7.4 PART NUMBER CROSS REFERENCE LIST**

Table 7-9 provides a cross reference from Pertec component series part numbers to the basic part identification.

#### **7.5 INTEGRATED CIRCUIT PIN SUMMARY**

A summary of the power and ground pins for the various integrated circuits employed in the D3000 Series Disk Drives is contained in Table 7-10. A summary of the function control for certain integrated circuits is listed in Table 7-11.

#### **7.6 PCBA INTERCONNECTIONS**

Interconnections between PCBAs installed in the D3000 Series Disk Drives are listed in Table 7-12 and illustrated in Figure 7-8\*.

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\*Foldout drawing, see end of this Section.

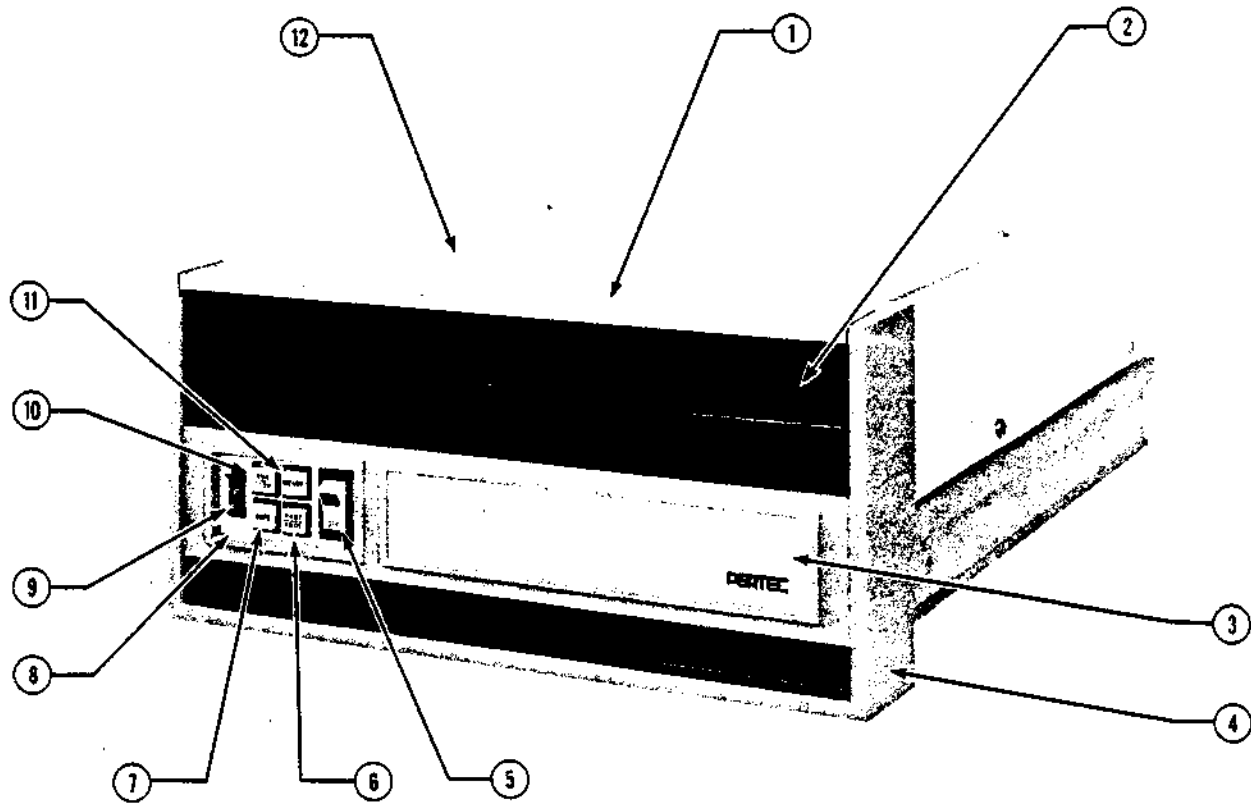
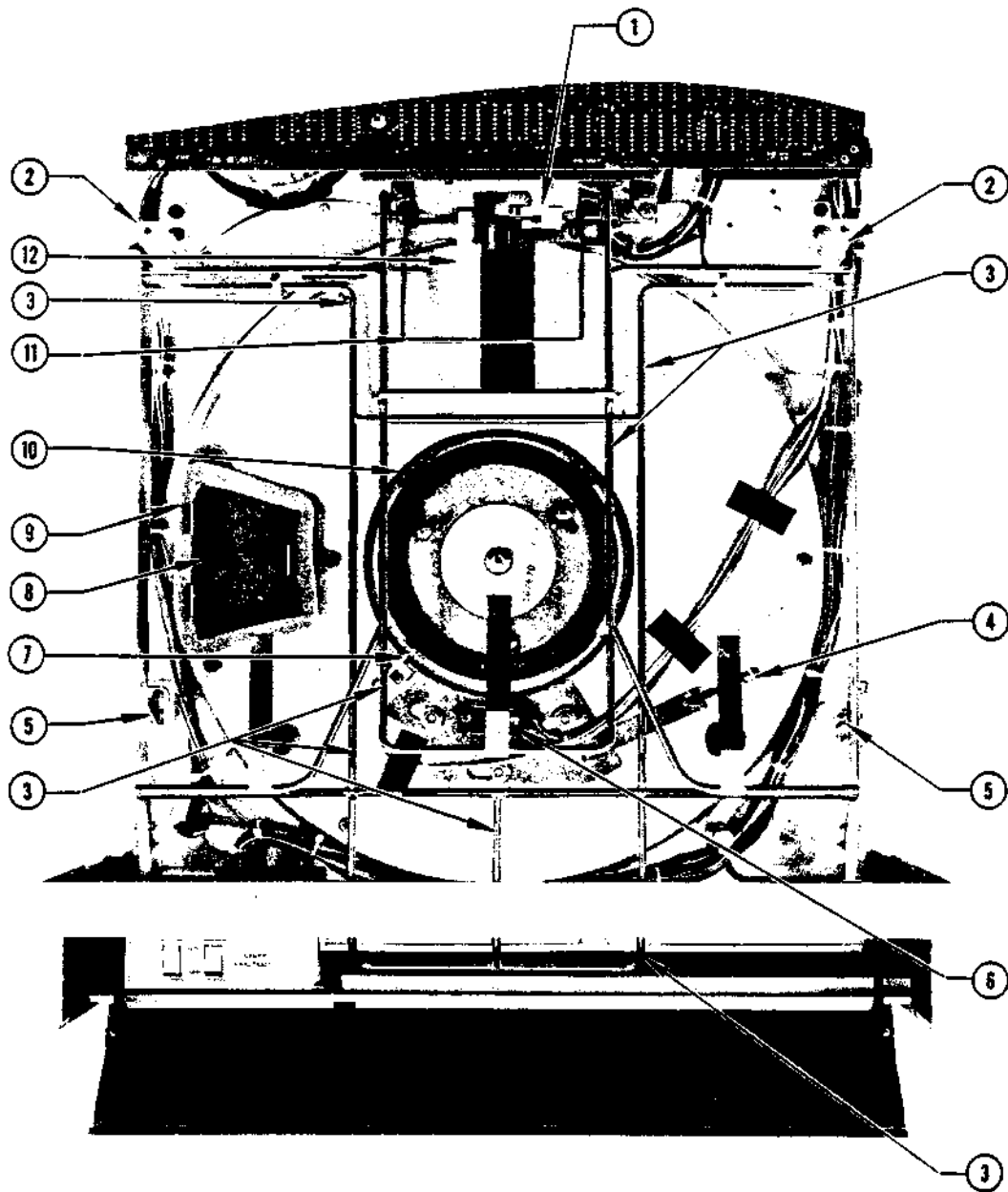


Figure 7-1. D3000 Disk Drive Photo Parts Index, Front View

**Table 7-1  
D3000 Disk Drive Photo Parts Index**

<b>Figure and Index No.</b>	<b>Part Number</b>	<b>Description</b>
<b>Figure 7-1</b>		
1	102644-01	Door Handle (Front Load Only)
2	102643-01	Door
3	102647-01 102647-02 102647-03 102647-04	Accent Panel White with Logo Accent Panel White without Logo Accent Panel Clear with Logo Accent Panel Clear without Logo
4	102703-01 102704-01	Bezel Assembly (Front Load Only) Bezel Assembly (Top Load Only)
5	506-1816	ON/OFF Power Switch/Indicator
6	103663-30 659-0730	PROT/PROT Switch Assembly Lamp, Switch
7	103663-28 659-0730	SAFE Switch Assembly Lamp, Switch
8	104616-01	Switch Panel Cover
9	102759-01	Unit Selector Switch
10	103663-27 659-0730	RUN/STOP Switch Assembly Lamp, Switch
11	103663-29	READY Switch Assembly
12	103746-01 103747-01 615-0084 612-1002	Dust Cover (Front Load Only) Dust Cover (Top Load Only) Screw (8) Washer (8)
Not Shown	103670-01	Slide Assembly with Hardware



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Figure 7-2. D3000 Disk Drive, Photo Parts Index

**Table 7-2**  
**D3000 Disk Drive Photo Parts Index**

Figure and Index No.	Part Number	Description
Figure 7-2		
1	103494-01	Head Ramp
2	102625-01	Receiver Pivot Support
3	103472-01	Cartridge Receiver Wire Form Assembly
4	103487-01	Sector Adjustment Plate Assembly
5	103488-01	Receiver Spring
6	103481-01	Sector Sensor Assembly
7	104621-06	Transducer Assembly
8	102669-01	Air Screen
9	103474-01	Air Duct Gasket
10	102675-01	Phase-Lock Ring
11	102624-01	Cartridge Door Opener
12	102683-02	Disk Guide

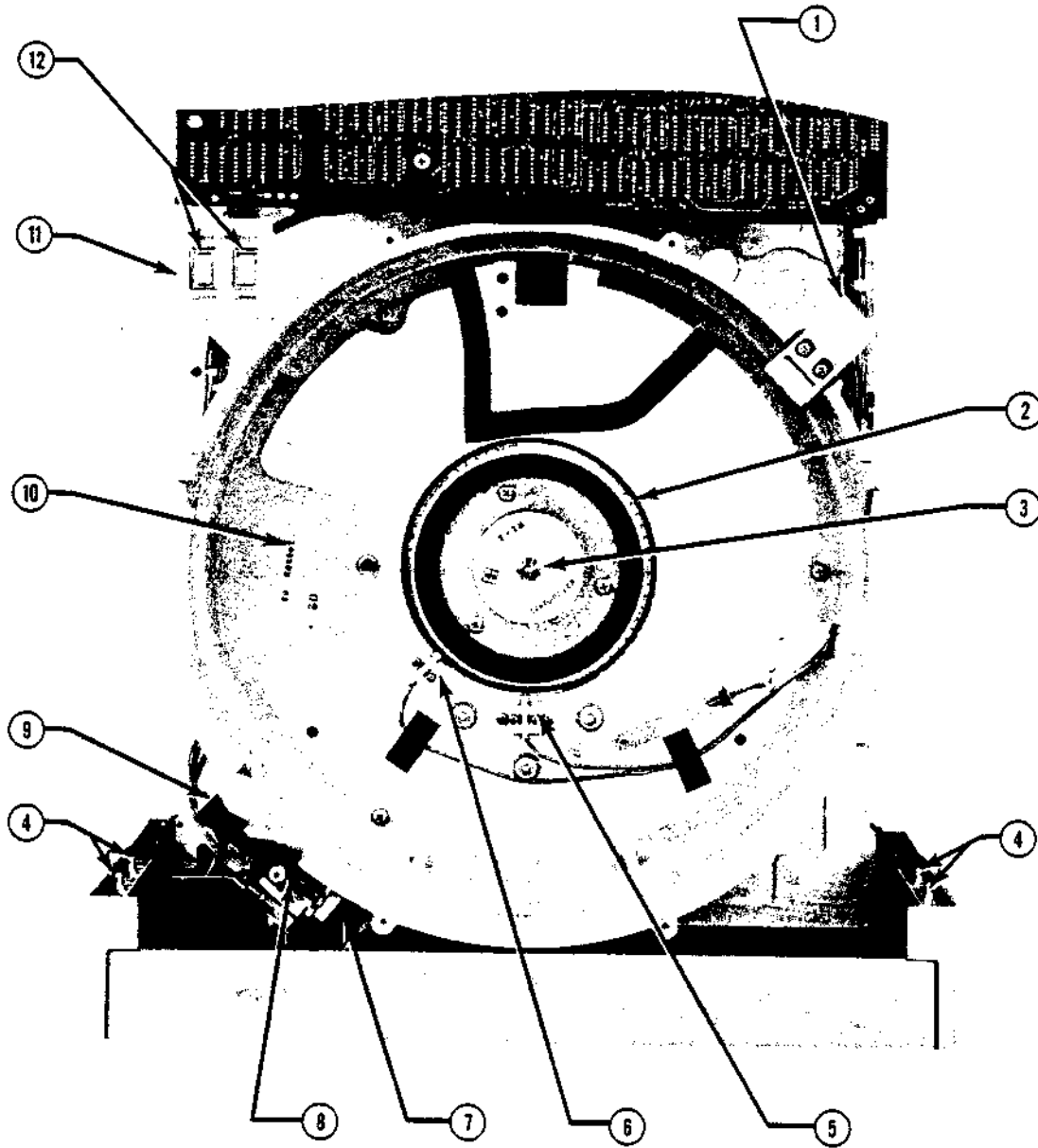


Figure 7-3. D3000 Disk Drive Photo Parts Index (Top Load Models)

**Table 7-3**  
**D3000 Disk Drive Photo Parts Index (Top Load Models)**

Figure and Index No.	Part Number	Description
Figure 7-3		
1	103479-01 600-0808	Cartridge Retainer Screw
2	102675-01	Phase Lock Ring
3	102670-03 102670-04	Spindle Assembly (100 tpi) (with Shaft Adapter) Spindle Assembly (200 tpi) (with Shaft Adapter)
4	615-4997 604-2600	Ball Stud Nut
5	104621-07	Transducer Assembly (Upper Only)
6	104621-06 102764-02	Transducer Assembly (Lower Only) Transducer Assembly (Upper and Lower)
7	102754-02 517-0001	Solenoid Assembly Solenoid
8	102762-08	Cartridge Lock Switch Assembly
9	102612-02	Cartridge Lock Arm
10	104503-03	Cartridge Adapter Assembly
11	102658-01	Write Protect Nameplate
12	506-0001	Rocker Switch

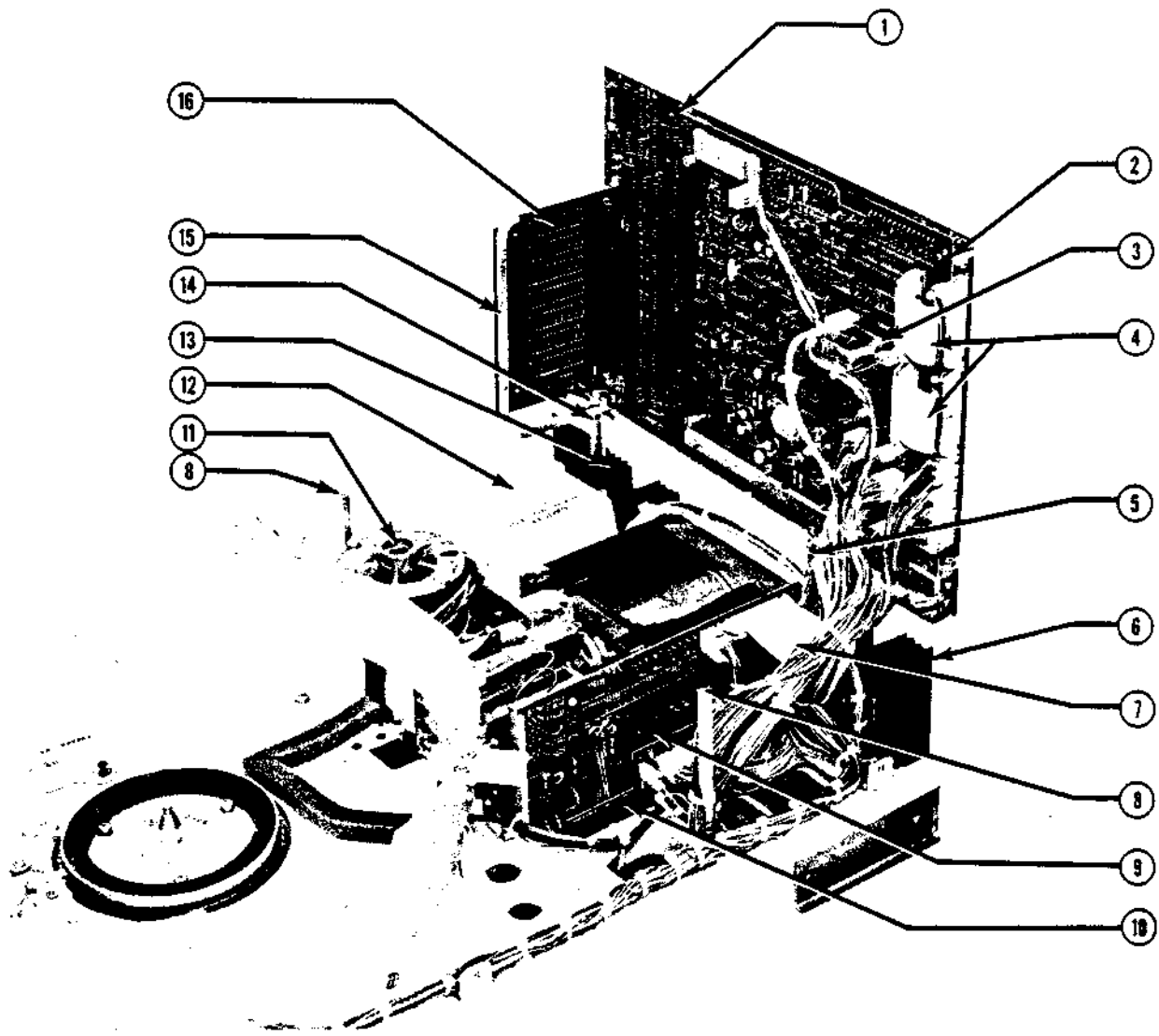


Figure 7-4. D3000 Disk Drive Photo Parts Index, PCBAs in Extended Position



**Table 7-4  
D3000 Disk Drive Photo Parts Index**

Figure and Index No.	Part Number	Description
<b>Figure 7-4</b>		
1	XXXXXX-*	Logic PCBA
2	102811-*	Servo PCBA
3	502-1243	Emergency Unload Relay
4	102755-01	Interboard Cable Assembly
5	103466-01	Hinged Standoff
6	102746-01	Heatsink Assembly (12-Inch Cable)
7	102755-03	Interboard Cable Assembly
8	102709-01	Standoff
9	103751-*	Read/Write PBA
10	103977-01	Temperature Compensation PCBA
11	103579-01	Drive Motor Assembly
12	102666-01	Protective Cover
13	102746-02	Heatsink Assembly (26-Inch Cable)
14	612-1017 616-0026	Spacer (Around Hinged Standoff) Spring (Around Hinged Standoff)
15	102896-01	Support Bar
16	102801-*	Termination PCBA
*Order as indicated on PCBA.		

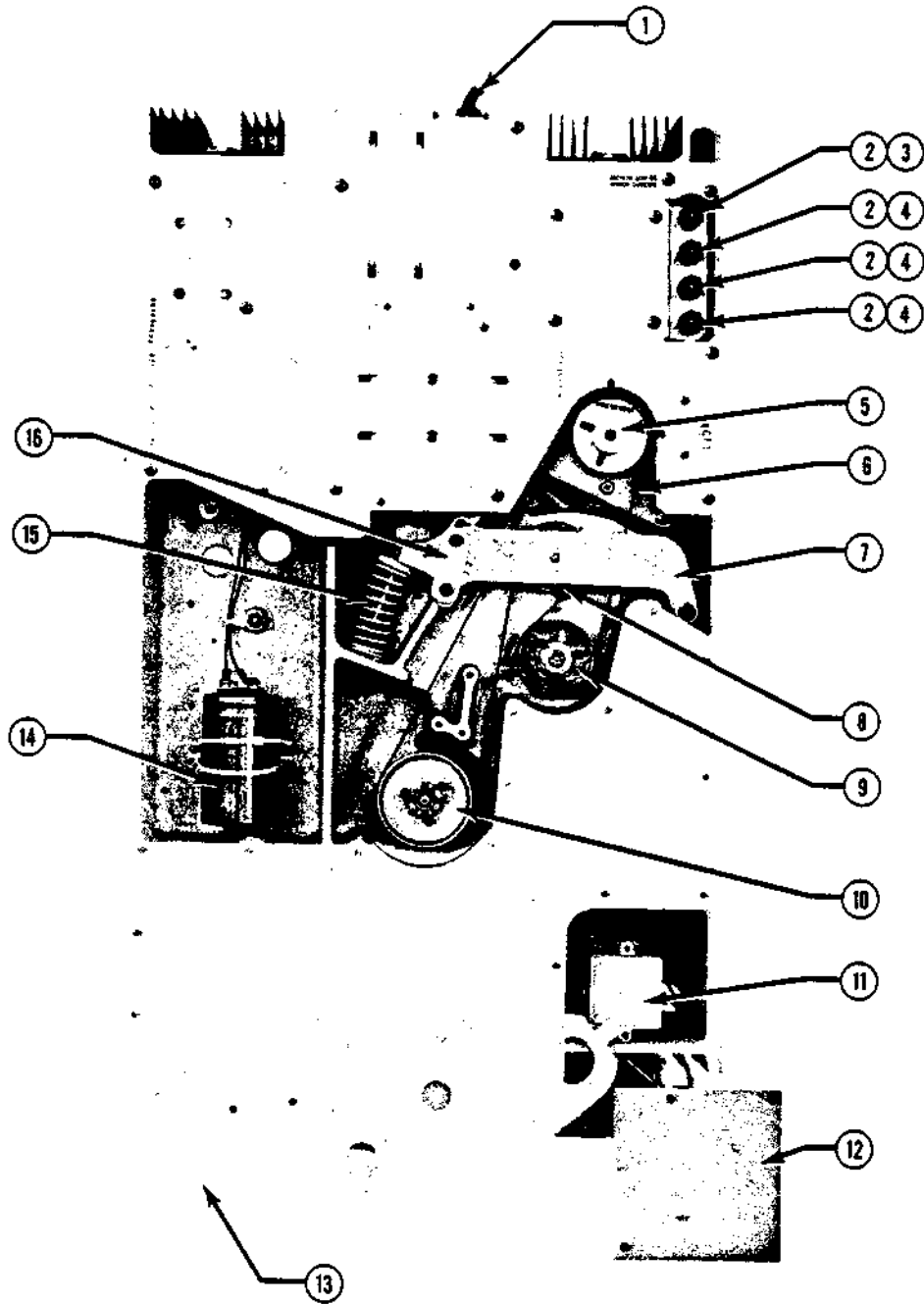
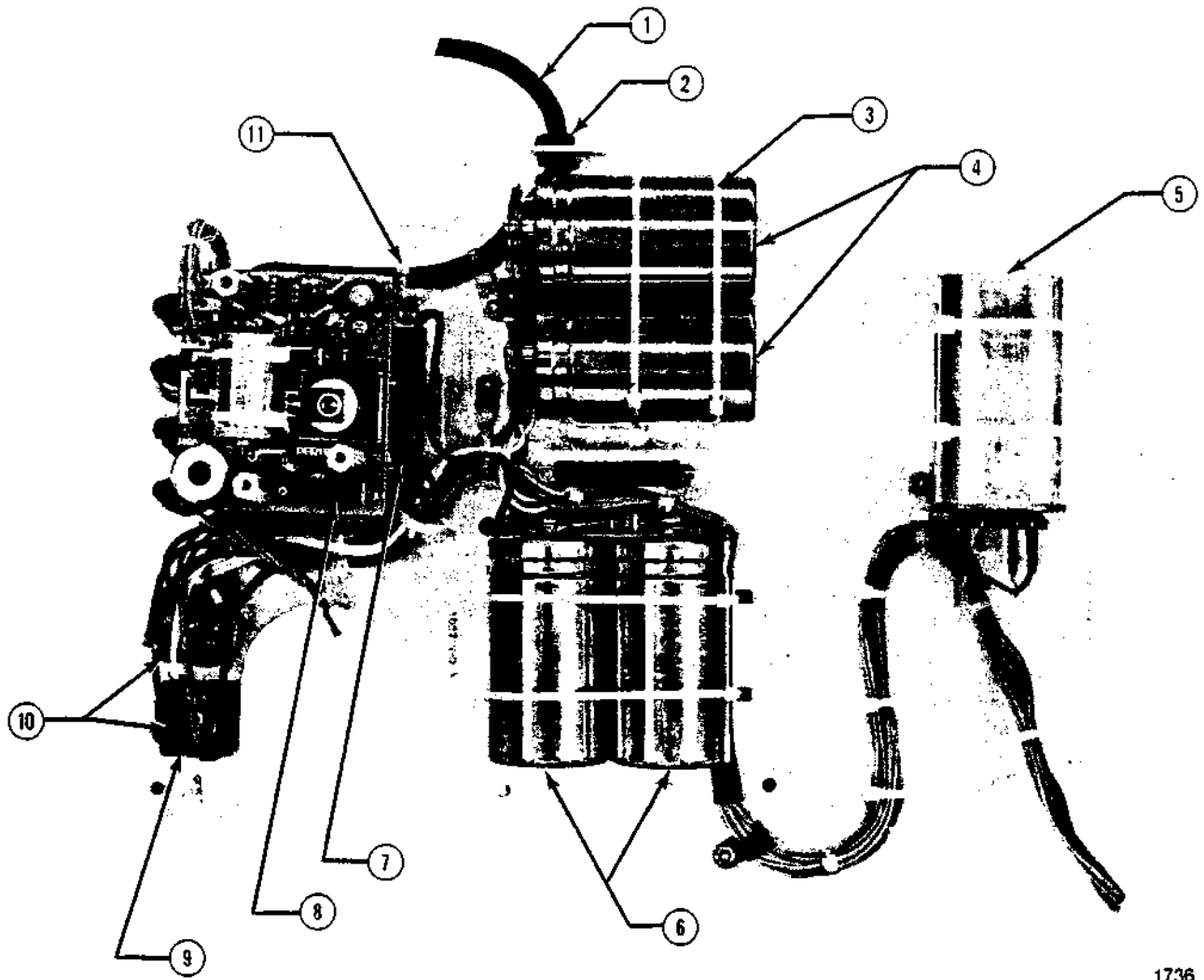


Figure 7-5. D3000 Disk Drive Photo Parts Index, Bottom View

**Table 7-5**  
**D3000 Disk Drive Photo Parts Index**

Figure and Index No.	Part Number	Description
Figure 7-5		
1	692-2717 892-0250 692-0251	Power Cord (95—125v ac, 50/60 Hz) Power Cord (190—250v ac, 60 Hz Only) Power Cord (190—250v ac, 50 Hz Only)
2	658-2038	Fuse Holder, Panel Mount, 3AG Miniature
3	663-3550 663-3525	Fuse, F1, 3AG, 5A, Slow Blow, 95—125v Operation Fuse, F1, 3AG, 2.5A, Slow Blow, 190—250v Operation
4	663-3100	Fuses, F2, F3, F4, 3AG, 10A, Fast Blow
5	103642-01 103642-02 103642-03	Drive Motor Pulley Kit, 1500 rpm 60 Hz Drive Motor Pulley Kit, 2400 rpm 60 Hz or 1500 rpm 50 Hz Drive Motor Pulley Kit, 2400 rpm 50 Hz
6	102634-01 102634-02	Drive Belt, 60 Hz Operation Drive Belt, 50 Hz Operation
7	102639-01	Idler Mounting Plate
8	102637-01	Tension Idler Assembly (Partially Seen)
9	102722-01 102722-02 600-2605	Blower Pulley, 1500 rpm Blower Pulley, 2400 rpm Screw
10	102635-01 102635-02	Spindle Pulley, 2400 rpm Spindle Pulley, 1500 rpm
11	521-0006	Line Filter
12	103583-01	RFI Filter Cover
13	102748-01 103764-01	Belt Guard Plate Assembly 103764-01 Static-Discharge Kit
14	134-4792	Capacitor, 47,000 $\mu$ f, $\pm$ 10%, +75%, 15wv dc
15	102667-01	Spring
16	103584-01 103584-02	Thrust Washer Thrust Washer



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Figure 7-6. D3000 Disk Drive Photo Parts Index, Power Supply Assembly

**Table 7-6**  
**D3000 Disk Drive Photo Parts Index**

Figure and Index No.	Part No.	Description
Figure 7-6		
1	692-2717 692-0250 692-0251	Power Cord, 95 — 125v ac, 50/60 Hz Power Cord, 190—250v ac, 60 Hz only Power Cord, 190—250v ac, 50 Hz only
2	660-0010	Power Cord Bushing
3	661-0013	Tie Wrap
4	134-4792	Capacitor, 47,000 $\mu$ f, —10%, +75%, 15v
5	140-0001	Capacitor, 10 $\mu$ f, $\pm$ 10%, 165v
6	134-2492	Capacitor, 24,000 $\mu$ f, —10%, +75%, 25v
7	511-3000	Power Transformer
8	103571-01 103571-02	Motor Control PCBA, 90—125v ac Motor Control PCBA, 190—250v ac
9	135-4742	Capacitor, 0.47 $\mu$ f, $\pm$ 20%, 50v
10	320-9802	Rectifier Bridge, 10A, 100v
11	661-0007	Tie Wrap, No. 10 Mount

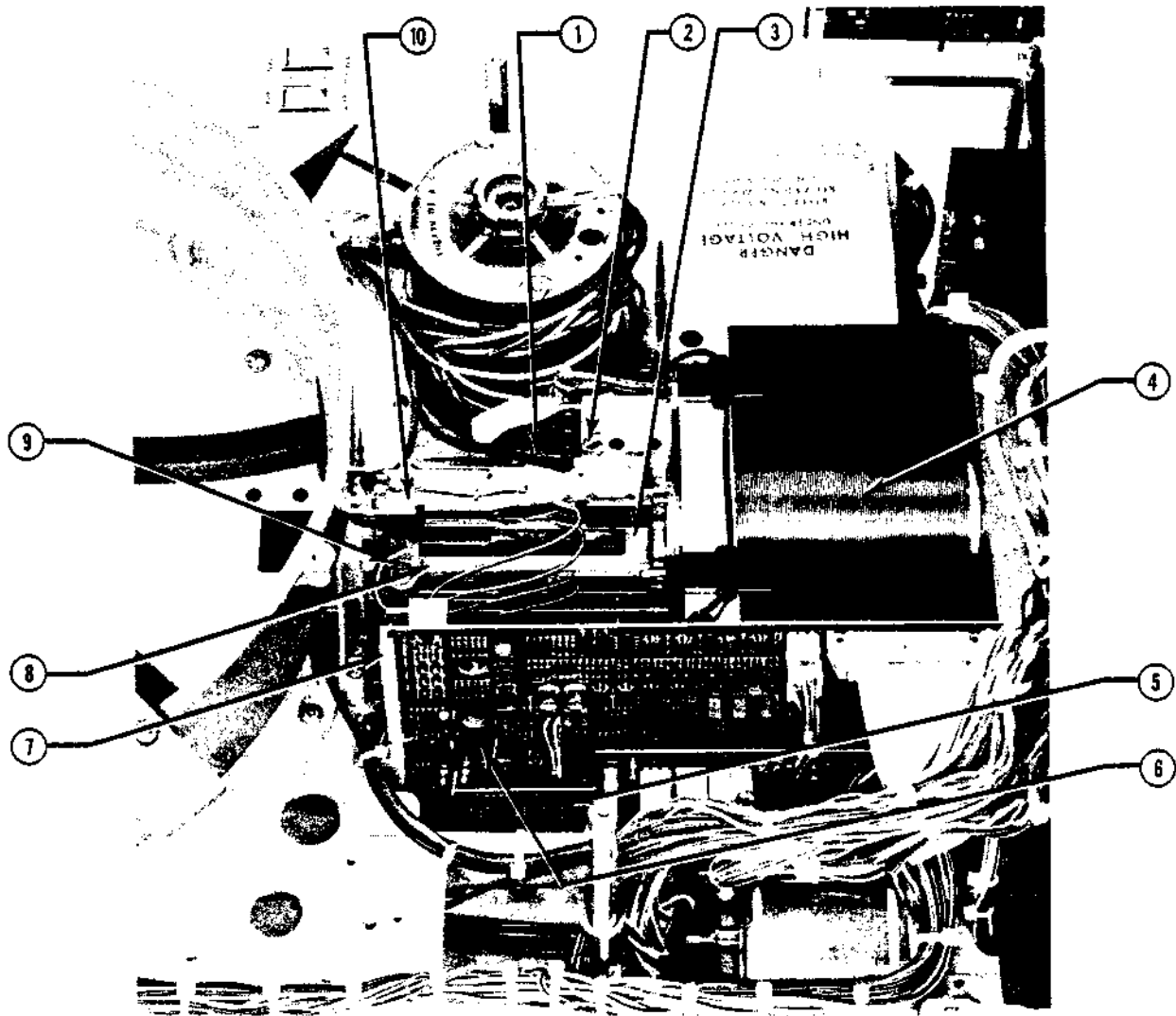


Figure 7-7. D3000 Disk Drive Photo Parts Index (200 tpi Models Only)

**Table 7-7  
D3000 Disk Drive Photo Parts Index**

Figure and Index No.	Part Number	Description
<b>Figure 7-7</b>		
1	104512-01	Flex Strip Assembly
2	104628-01	Balance Weight
3	104626-01 602-0614 603-3604	Head Clamp Plate Screw Setscrew
4	103696-01	Voice Coil Assembly
5	103977-01	Temperature Compensation PCBA
6	103751-*	Read/Write PCBA
7	104500-01 104500-02	Sensor Receiver Assembly (100 tpi) Sensor Receiver Assembly (200 tpi)
8	102074-01 102074-02 104501-01 104501-02	Carriage/Scale Assembly (100 tpi) Carriage/Scale Assembly (200 tpi) Scale Assembly (100 tpi) Scale Assembly (200 tpi)
9	103499-01	Lamp/Lens Assembly
10	526-XXXX	Head Assembly
*Order as indicated on PCBA.		

**Table 7-8  
Recommended Spare Parts List**

Description	Part No.
1. Logic PCBA	XXXXXX-*
2. Servo PCBA	102811-*
3. Read/Write PCBA	103751-*
4. Temperature Compensation PCBA	103977-*
5. Disk Platter Pack (100/200 tpi)	106963-01
6. Lamp and Lens Assembly	103499-01
7. Drive Motor Assembly	103579-01
8. Motor Control PCBA 95—125v ac Motor Control PCBA 190—250v ac	103571-01 103571-02
9. Head, Lower, 2200 bpi, 1500 rpm (200 tpi) Head, Upper, 2200 bpi, 1500 rpm (200 tpi)	526-0214 526-0215
Head, Lower, 2200 bpi, 2400 rpm (200 tpi) Head, Upper, 2200 bpi, 2400 rpm (200 tpi)	526-0216 526-0217
Head, Lower, 2200 bpi, 1500 rpm (100 tpi) Head, Upper, 2200 bpi, 1500 rpm (100 tpi)	526-0007 526-0006
Head, Lower, 2200 bpi, 2400 rpm (100 tpi) Head, Upper, 2200 bpi, 2400 rpm (100 tpi)	526-0008 526-0009
10. Sensor Receiver Assembly, 100 tpi Sensor Receiver Assembly, 200 tpi	104500-01 104500-02
11. Scale Assembly 100 tpi Scale Assembly 200 tpi	104501-01 104501-02
12. Fuse, 5A, Slow Blow, 95—125v ac Fuse, 2.5A, Slow Blow, 190—250v ac	663-3550 663-3525
13. Fuse, 10A, Fast Blow	663-3100
14. Filter (Air)	614-0006
15. POWER Switch	506-1816
16. RUN/STOP Switch Assembly	103663-17
17. SAFE Switch Assembly	103663-28
18. READY Switch Assembly	103663-29
19. PROTECT Switch Assembly	103663-30
20. Lamp, Switch	659-0730
*Order as indicated on PCBA.	

5-10-82  
(215) 728 1700



Table 7-9  
Part Number Cross Reference

PERTEC Part No.	Manufacturer	Manufacturer Part No. * / Description
Composition Resistors	(Comply with MIL-R-11)	
100-0395		3.9 ohms $\pm$ 5%, 1/4w
100-1005		10 ohms $\pm$ 5%, 1/4w
100-1015		100 ohms $\pm$ 5%, 1/4w
100-1025		1.5k ohms $\pm$ 5%, 1/4w
100-1055		1 meg ohm $\pm$ 5%, 1/4w
100-1235		150 ohms $\pm$ 5%, 1/4w
100-1525		1.5k ohms $\pm$ 5%, 1/4w
100-1535		15k ohms $\pm$ 5%, 1/4w
100-1815		180 ohms $\pm$ 5%, 1/4w
100-1825		1.8k ohms $\pm$ 5%, 1/4w
100-1845		180k ohms $\pm$ 5%, 1/4w
100-2215		220 ohms $\pm$ 5%, 1/4w
100-2225		2.2k ohms $\pm$ 5%, 1/4w
100-2235		22k ohms $\pm$ 5%, 1/4w
100-2705		27 ohms $\pm$ 5%, 1/4w
100-2725		2.7k ohms $\pm$ 5%, 1/4w
100-3305		33 ohms $\pm$ 5%, 1/4w
100-3315		390 ohms $\pm$ 5%, 1/4w
100-3325		3.3k ohms $\pm$ 5%, 1/4w
100-3925		3.9k ohms $\pm$ 5%, 1/4w
100-4705		47 ohms $\pm$ 5%, 1/4w
100-4715		470 ohms $\pm$ 5%, 1/4w
100-4725		4.7k ohms $\pm$ 5%, 1/4w
100-5625		5.6k ohms $\pm$ 5%, 1/4w
100-6805		68 ohms $\pm$ 5%, 1/4w
100-6815		680 ohms $\pm$ 5%, 1/4w
100-8215		820 ohms $\pm$ 5%, 1/4w
100-8235		82k ohms $\pm$ 5%, 1/4w
101-1025		1k ohms $\pm$ 5%, 1/2w
101-1505		15 ohms $\pm$ 5%, 1/2w
101-1515		150 ohms $\pm$ 5%, 1/2w
101-2205		22 ohms $\pm$ 5%, 1/2w
101-2715		270 ohms $\pm$ 5%, 1/2w
101-3305		33 ohms $\pm$ 5%, 1/2w
101-3325		3.3k ohms $\pm$ 5%, 1/2w
101-3915		390 ohms $\pm$ 5%, 1/2w
101-4715		470 ohms $\pm$ 5%, 1/2w
101-6805		68 ohms $\pm$ 5%, 1/2w
101-8205		82 ohms $\pm$ 5%, 1/2w
102-5615		560 ohms $\pm$ 5%, 1w
102-8205		82 ohms $\pm$ 5%, 1w
103-1215		120 ohms $\pm$ 5%, 2w
103-1815		180 ohms $\pm$ 5%, 2w
103-4705		47 ohms $\pm$ 5%, 2w

**Table 7-9**  
**Part Number Cross Reference (continued)**

PERTEC Part No.	Manufacturer	Manufacturer Part No. * / Description
Precision Resistors	(Comply with MIL-R-11)	
104-1000		100 ohms $\pm 1\%$ , 1/4w
104-1001		1k ohms $\pm 1\%$ , 1/4w
104-1002		10k ohms $\pm 1\%$ , 1/4w
104-1003		100k ohms $\pm 1\%$ , 1/4w
104-1100		110 ohms $\pm 1\%$ , 1/4w
104-1101		1.1k ohms $\pm 1\%$ , 1/4w
104-1102		11k ohms $\pm 1\%$ , 1/4w
104-1211		1.21k ohms $\pm 1\%$ , 1/4w
104-1330		133 ohms $\pm 1\%$ , 1/4w
104-1331		1.33k ohms $\pm 1\%$ , 1/4w
104-1332		13.3k ohms $\pm 1\%$ , 1/4w
104-1623		162k ohms $\pm 1\%$ , 1/4w
104-1781		1.78k ohms $\pm 1\%$ , 1/4w
104-1782		17.8k ohms $\pm 1\%$ , 1/4w
104-1961		1.96k ohms $\pm 1\%$ , 1/4w
104-1962		19.6k ohms $\pm 1\%$ , 1/4w
104-2151		2.15k ohms $\pm 1\%$ , 1/4w
104-2152		21.5k ohms $\pm 1\%$ , 1/4w
104-2370		237 ohms $\pm 1\%$ , 1/4w
104-2610		261 ohms $\pm 1\%$ , 1/4w
104-2611		2.61k ohms $\pm 1\%$ , 1/4w
104-2612		26.1k ohms $\pm 1\%$ , 1/4w
104-2870		287 ohms $\pm 1\%$ , 1/4w
104-3481		3.48k ohms $\pm 1\%$ , 1/4w
104-3831		3.83k ohms $\pm 1\%$ , 1/4w
104-3832		38.3k ohms $\pm 1\%$ , 1/4w
104-3833		383 ohms $\pm 1\%$ , 1/4w
104-3482		34.8k ohms $\pm 1\%$ , 1/4w
104-3483		348k ohms $\pm 1\%$ , 1/4w
104-4220		422 ohms $\pm 1\%$ , 1/4w
104-4221		4.22k ohms $\pm 1\%$ , 1/4w
104-4222		42.2k ohms $\pm 1\%$ , 1/4w
104-4641		4.64k ohms $\pm 1\%$ , 1/4w
104-4753		475k ohms $\pm 1\%$ , 1/4w
104-5110		511 ohms $\pm 1\%$ , 1/4w
104-5111		5.11k ohms $\pm 1\%$ , 1/4w
104-5113		511k ohms $\pm 1\%$ , 1/4w
104-5620		562 ohms $\pm 1\%$ , 1/4w
104-5621		5.62k ohms $\pm 1\%$ , 1/4w
104-6192		61.9k ohms $\pm 1\%$ , 1/4w
104-6811		6.81k ohms $\pm 1\%$ , 1/4w
104-6812		68.1k ohms $\pm 1\%$ , 1/4w
104-7500		750 ohms $\pm 1\%$ , 1/4w
104-8252		82.5k ohms $\pm 1\%$ , 1/4w
104-9090		909 ohms $\pm 1\%$ , 1/4w

Table 7-9  
Part Number Cross Reference (continued)

PERTEC Part No.	Manufacturer	Manufacturer Part No. * / Description
<b>Precision Resistors (Continued)</b>		
104-9092		90.9k ohms $\pm 1\%$ , 1/4w
104-9093		909k ohms $\pm 1\%$ , 1/4w
107-1000		100 ohms $\pm 1\%$ , 1/8w
107-1001		1k ohms $\pm 1\%$ , 1/8w
107-1002		10k ohms $\pm 1\%$ , 1/8w
107-1003		100k ohms $\pm 1\%$ , 1/8w
107-1101		1.1k ohms $\pm 1\%$ , 1/8w
107-1102		11k ohms $\pm 1\%$ , 1/8w
107-1211		1.21k ohms $\pm 1\%$ , 1/8w
107-1332		13.3k ohms $\pm 1\%$ , 1/8w
107-1471		1.47k ohms $\pm 1\%$ , 1/8w
107-1781		1.78k ohms $\pm 1\%$ , 1/8w
107-1782		17.8k ohms $\pm 1\%$ , 1/8w
107-1961		1.96k ohms $\pm 1\%$ , 1/8w
107-1962		19.6k ohms $\pm 1\%$ , 1/8w
107-1963		196k ohms $\pm 1\%$ , 1/8w
107-2152		21.5k ohms $\pm 1\%$ , 1/8w
107-2611		2.61k ohms $\pm 1\%$ , 1/8w
107-2612		26.1k ohms $\pm 1\%$ , 1/8w
107-2870		287 ohms $\pm 1\%$ , 1/8w
107-3482		34.8k ohms $\pm 1\%$ , 1/8w
107-3483		348k ohms $\pm 1\%$ , 1/8w
107-3832		38.3k ohms $\pm 1\%$ , 1/8w
107-4221		4.22k ohms $\pm 1\%$ , 1/8w
107-4222		42.2k ohms $\pm 1\%$ , 1/8w
107-5110		511 ohms $\pm 1\%$ , 1/8w
107-5111		5.11k ohms $\pm 1\%$ , 1/8w
107-5112		51.1k ohms $\pm 1\%$ , 1/8w
107-5113		511k ohms $\pm 1\%$ , 1/8w
107-5620		562 ohms $\pm 1\%$ , 1/8w
107-6192		61.9k ohms $\pm 1\%$ , 1/8w
107-6811		6.81k ohms $\pm 1\%$ , 1/8w
107-6812		68.1k ohms $\pm 1\%$ , 1/8w
107-8252		82.5k ohms $\pm 1\%$ , 1/8w
107-9090		909 ohms $\pm 1\%$ , 1/8w
109-0003		0.10 ohms $\pm 3\%$ , 5w
113-0111		10 ohms $\pm 1\%$ , 1w
<b>Variable Resistors</b>		
121-1020	Beckman	79PR1K, Variable, 1k ohms $\pm 10\%$ , 3/4w
121-1030	Beckman	79PR10K, Variable, 10k ohms $\pm 10\%$ , 3/4w
121-5020	Beckman	79PR5K, Variable, 5k ohms $\pm 10\%$ , 3/4w
123-5020	Spectrol	53-1-1-502, Variable, 5k ohms $\pm 10\%$ , 1/2w

**Table 7-9**  
**Part Number Cross Reference (Continued)**

PERTEC Part No.	Manufacturer	Manufacturer Part No. / Description
<b>Dipped Mica Capacitors</b>		
130-1005	(Comply with MIL-C-5)	10 pf $\pm$ 5%, 500v dc
130-1015		100 pf $\pm$ 5%, 500v dc
130-1515		150 pf $\pm$ 5%, 500v dc
130-2205		22 pf $\pm$ 5%, 500v dc
130-2215		220 pf $\pm$ 5%, 500v dc
130-3305		33 pf $\pm$ 5%, 500v dc
130-4705		47 pf $\pm$ 5%, 500v dc
130-4715		470 pf $\pm$ 5%, 500v dc
130-5605		56 pf $\pm$ 5%, 500v dc
130-6805		68 pf $\pm$ 5%, 500v dc
130-7515	750 pf $\pm$ 5%, 500v dc	
<b>Mylar Film Capacitors</b>		
131-1020	TRW	663uw series, .001 $\mu$ fd $\pm$ 10%, 100v dc
131-1030	TRW	663uw series, .01 $\mu$ fd $\pm$ 10%, 100v dc
131-1040	TRW	663uw series, .10 $\mu$ fd $\pm$ 10%, 100v dc
131-2220	TRW	663uw series, .0022 $\mu$ fd $\pm$ 10%, 100v dc
131-4720	TRW	663uw series, .0047 $\mu$ fd $\pm$ 10%, 100v dc
<b>Solid Tantalum Polarized Capacitors</b>		
132-1062	Mallory	TIM106M010POW, 10 $\mu$ fd $\pm$ 20%, 10v dc
132-2752	Mallory	TIM275M035POW, 2.7 $\mu$ fd $\pm$ 20%, 35v dc
139-2244	Kemet	T310A225M020AS, 2.2 $\mu$ fd $\pm$ 20%, 20v dc
139-2262	Kemet	T310B226M015AS, 22 $\mu$ fd $\pm$ 20%, 15v dc
139-3352	Kemet	T310A335M015AS, 3.3 $\mu$ fd $\pm$ 20%, 15v dc
<b>Aluminum Foil Polarized Capacitor</b>		
134-2680	Mallory	TOW282N025N1R3P, 2600 $\mu$ fd + 100% -10%, 20v dc
<b>Ceramic Capacitors</b>		
135-1002	Centralab	DD-102, .001 $\mu$ fg $\pm$ 10%, 1000v dc
135-4742	Erie	8131-050651-474M, .47 $\mu$ fd $\pm$ 20%, 50v dc
<b>Transistors</b>		
200-3053	RCA	2N3053, NPN, Silicon Annular, T0-5
200-3251	Motorola	2N3251, PNP, Switching, T0-18
200-4123	Motorola	2N4123, NPN, Silicon, T0-92
200-4125	Motorola	2N4125, PNP, Silicon, T0-92
200-4400	Motorola	2N4400, NPN, Silicon, T0-92
200-4402	Motorola	2N4402, PNP, Silicon, T0-92
200-5321	RCA	2N5321, NPN, Silicon, T0-5
200-5323	RCA	2N5323, PNP, Silicon, T0-5
200-6051	Motorola	2N6051, PNP, Power Darlington, T0-3
200-6058	Motorola	2N6058, NPN, Power Darlington, T0-3
200-6282	Motorola	2N6282, NPN, Power Darlington, T0-3
200-6285	Motorola	2N6285, PNP, Power Darlington, T0-3

**Table 7-9  
Part Number Cross Reference (Continued)**

PERTEC Part No.	Manufacturer	Manufacturer Part No. * / Description
Field Effect Transistors 204-0074	National	TIS-74, N-Channel, Switching, T0-106
Diodes 300-4002 300-4446	Motorola Components, Inc.	IN4002, Rectifier, 1A, 100 PIV, D0-41 IN4446, Switching, 75PIV, D0-7
Zener Diodes 300-0475 330-0515 330-1005 330-1205 331-0275 331-0395 331-0515 331-0605	Motorola Motorola Motorola Motorola Motorola Motorola Motorola Motorola	IN4732A, Zener, 4.7v dc $\pm$ 5%, 1w, D0-41 IN4733A, Zener, 5.1v dc $\pm$ 5%, 1w, D0-41 IN4740A, Zener, 10v $\pm$ 5%, 1w, D0-41 IN4742A, Zener, 12v $\pm$ 5%, 1w IN5223B, Zener, 2.7v dc $\pm$ 5%, 500mw, D0-7 IN5228B, Zener, 3.9v dc $\pm$ 5%, 500mw, D0-7 W5231B, Zener, 5.1v dc $\pm$ 5%, 500mw, D0-7 IN5233B, Zener, 6v dc $\pm$ 5%, 500mw, D0-7
Light Emitting Diode 301-0055	Optron	OR133W-3, Light Emitting, Infra Red, T0-46
Operational Amplifiers 400-0307 400-0319 400-0592 400-5558	National National Signetics National	LM307N, IC, Op Amp LM319N, IC, Dual Comparator NE592A, IC, Op Amp LM1458N, IC, Dual Op Amp
Relays 502-1205 502-1242	Potter & Brumfield Potter & Brumfield	R50-E2-X1-12VDC, SPDT, Contact Rating 5A at 26v dc R10-E1-X4-V185-12VDC, 4PDT, Contact Rating 5A at 28v dc
Inductors 515-1015 515-3305 515-6805	Delevan Delevan Delevan	1537-76, 100 $\mu$ H $\pm$ 5%, 4.5 ohms 1537-52, 33 $\mu$ H $\pm$ 5%, 2.9 ohms 1537-68, 68 $\mu$ H $\pm$ 5%, 3.3 ohms
Crystals 524-0002	Northern Eng Lab	NE12, 10.00 MHz $\pm$ 0.005
*or equivalent		

Table 7-10  
IC Power and Ground Pin Summary

Type	Gnd	+5V	-5V	+V	-V
715	—	—	—	13	10
733	—	—	—	10	5
741	—	—	—	11	6
7400	7	14	—	—	—
7402	7	14	—	—	—
7404	7	14	—	—	—
7405	7	14	—	—	—
7410	7	14	—	—	—
7413	7	14	—	—	—
7430	7	14	—	—	—
7450	7	14	—	—	—
7476	13	5	—	—	—
7483	12	5	—	—	—
7486	7	14	—	—	—
7493	10	5	—	—	—
7496	12	5	—	—	—
74161	8	16	—	—	—
74164	7	14	—	—	—
74193	8	16	—	—	—
75107	7	14	13	—	—
75451	4	8	—	—	—

Table 7-11  
Function Control Summary

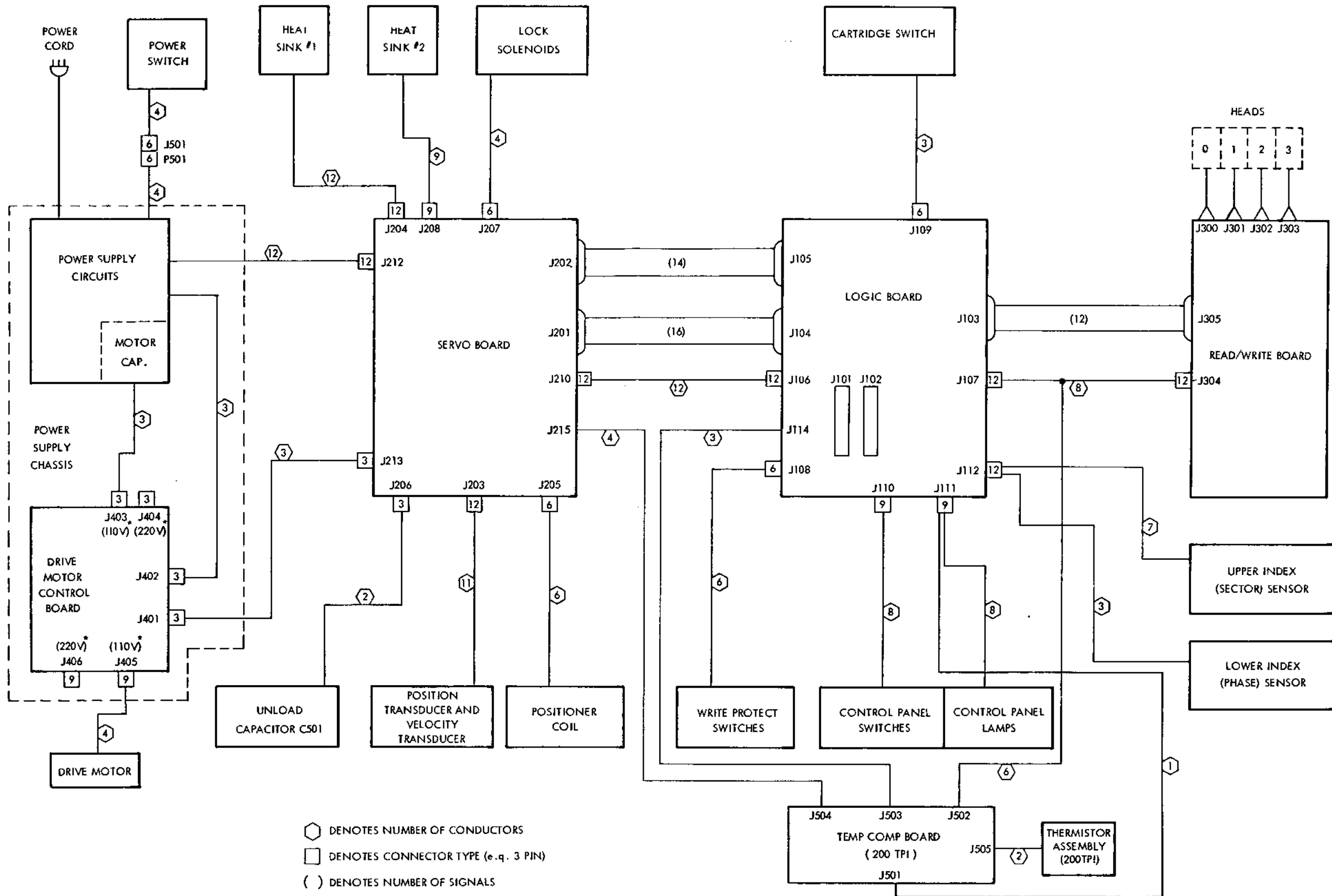
Type	Clocking Transition	Clearing Level	Loading Level
7476	H to L	Low	—
74H106	H to L	Low	—
7493	H to L	High	—
7496	L to H	Low	High
74161	L to H	Low	Low (and clock)
74164	L to H	Low	—
74193	L to H	High	Low

**Table 7-12  
PCBA Interconnections**

Logic PCBA	
J101	Interface Connector
J102	Interface Connector
J103	Interboard Connector (J305 Read/Write PCBA)
J104	Interboard Connector (J201 Servo PCBA)
J105	Interboard Connector (J202 Servo PCBA)
J106	Power Link Cable (J210 Servo PCBA)
J107	Power Link Cable (J304 Read/Write PCBA)
J108	Write Protect Switches
J109	Cartridge Switch/Door Lock Solenoids and Cartridge Lock Solenoid
J110	Control Panel Switches
J111	Control Panel Lamps and Temp. Comp. PCBA
J112	Upper Index (Sector) Sensor/Lower Index (Phase) Sensor
J114	Current Cylinder Address to Temp. Comp PCBA (200 tpi)
Servo PCBA	
J201	Interboard Connector (Logic PCBA J104)
J202	Interboard Connector (Logic PCBA J105)
J203	Position and Velocity Transducer
J204	Heatsink No. 1
J205	Positioner Coil
J206	Unload Capacitor
J207	Lock Solenoids
J208	Heatsink No. 2
J210	Power Link Cable to Logic PCBA
J212	Unregulated Power from Power Supply
J213	Trigger to Motor Control PCBA
J215	Temperature Compensation PCBA Offset (200 tpi)
Read/Write PCBA	
J300	Head 0
J301	Head 1
J302	Head 2
J303	Head 3
J304	Power Link Cable from Logic PCBA
J305	Interboard Connector (Logic J103)
Motor Control PCBA	
J401	Trigger from Servo PCBA (Servo PCBA J213)
J402	AC Power from Power Supply Circuits
J403	Motor Capacitor (115v Operation)
J404	Motor Capacitor (220v Operation)
J405	Drive Motor (115v Operation)
J406	Drive Motor (220v Operation)
Temperature Compensation PCBA (200 tpi)	
J502	Logic PCBA — Power Link Cable
J503	Logic PCBA Current Address
J504	Servo PCBA Temperature Compensation Offset
J505	Thermistor Cable Assembly
J506	Test Connector







\* REFER TO FIGURE 4 - 14 FOR INPUT LINE VOLTAGES

Figure 7-8. PCBA Interconnections, Block Diagram