

SERVICE NOTE

SUPERSEDES
None

HP 3960 PORTABLE ANALOG RECORDER

RECOMMENDED SPARE PARTS

The attached list provides spare parts provisioning guidelines for the HP 3960 Portable Analog Recorder. The list is grouped into three categories:

1. Base Transport
Servo Amp, Power Supply, Meter and Delay PC Cards plus optional accessories.
2. F.M. Electronics
3. Direct Electronics

To provision a spare parts list for a 3960A with all F.M. Electronics, use the lists for the base transport and F.M. Electronics.

Note: No provisions for mixed electronics have been made in the list. If your system has mixed electronics, combine List II and III.

In addition to the list, two tables are provided for your convenience. Table I is a list of the electronic options. On the preceding page of Table I is an explanation on the use of the table. Table 2 lists the manufacturers by Federal Code Number. i.e., Hewlett-Packard Company has Federal Code Number 28480. Thus, when reading across the parts list, the column labelled MFG Code refers to the Federal Code Number assigned to the component or part manufacturer.

Three recommended quantity levels are provided:

- Level I - Electrical and mechanical components most frequently replaced.
- Level II - Printed circuit boards and replaceable modules.
- Level III - All items in Level I and II plus additional high cost or low failure rate items and subassemblies. This level is recommended for support of an isolated unit for up to one year.

BG/ps/WN

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HEWLETT  PACKARD

For more information, call your local HP Sales Office or East (201) 261-5000 • Midwest (312) 677-0400 • South (404) 436-6101
West (213) 877-1202. Or, write: Hewlett-Packard, 1501 Page Mill Road, Palo Alto, California 94304. In Europe, 1217 Meyrin-Geneva

Printed in U.S.A.

BASE TRANSPORT

Hewlett-Packard Part Number	Description	FSN	Mfg Code	Manufacturer's Part Number	Level		
					I	II	III
0180-0204	C:FXD Elect 2800 UF 4100-10% 40 VDCW	5910-772-6345	56289	037694 DFP	I		I
0180-2257	C:FXD Elect 31000 UF 15 VDCW		28480	0180-2257	I		I
0340-0164	Insulator Transistor		28480	0340-0164	I		I
0340-0190	Insulator Transistor				I		I
0370-0342	Knob Monitor & Speed	5355-116-3800			I		I
0380-0003	Spacer				I		I
0380-0004	Spacer				I		I
0410-0191	Crystal: 108 000 KHz		28480	0410-0191	I		I
0490-0347	Relay: 24 VDC		70309	TF 154CC-CC-24 VDC	I		I
0490-0370	Spring: Relay Retainer				I		I
0490-0915	Relay 6 PDT				I		I
0698-0082	R:FXD MF 464 1% 1/8W	5905-974-6075	14674	C4			I
0698-0084	R:FXD MF 2.15K 1% 1/8W	5905-974-6073	14674	C4			2
0698-3132	R:FXD MF 261	5905-828-0388	14674	C4			I
0698-3150	R:FXD MF 2.37K 1% 1/8W		28480	0698-3150			I
0698-3152	R:FXD MF 3.48K 1% 1/8W	5905-420-7130	14674	C4			I
0698-3153	R:FXD MF 3.83K 1% 1/8W	5905-974-6081	91637	MFF-1/10-32			I
0698-3155	R:FXD MF 4.64K 1% 1/8W	5905-976-3418	91637	MFF-1/10-32			I
0698-3394	R:FXD MF 31.6 1% 1/2W						I
0698-3430	R:FXD MF 21.5 1% 1/8W	5905-420-7136	28480	0698-3430			I
0698-3441	R:FXD MF 215 1% 1/8W	5905-974-6076	91637	MF-1/10-32			I
0698-3442	R:FXD MF 237 1% 1/8W	5905-489-6773	28480	0698-3442			I
0698-3443	R:FXD MF 287 1% 1/8W	5905-194-0341	91637	MF 1/10-32			I
0698-3444	R:FXD MF 316 1% 1/8W	5905-974-6079	28480	0698-3444			I
0698-3445	R:FXD MF 348 1% 1/8W	5905-493-4289	28480	0698-3445			I
0698-3446	R:FXD MF 383 1% 1/8W	5905-974-6083	28480	0698-3446			I
0698-3454	R:FXD MF 215K 1% 1/8W	5905-974-6077	28480	0698-3454			I
0698-3455	R:FXD MF 261K 1% 1/8W	5905-407-0060	28480	0698-3455			I
0698-3456	R:FXD MF 287K 1% 1/8W		28480	0698-3456			I
0698-3457	R:FXD MF 316K 1% 1/8W	5905-491-4586	28480	0698-3457			I
0698-3458	R:FXD MF 348K 1% 1/8W		28480	0698-3618			I
0698-3618	R:FXD MET OX 82 5% 2W		28480	0698-4123			I
0698-4123	R:FXD MF 499 1% 1/8W	5905-998-1915	28480	0698-4123			I
0698-4447	R:FXD MF 280 1% 1/8W		28480	0698-4447			I

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Hewlett-Packard Part Number	Description	FSN	Mfg Code	Manufacturer's Part Number	Level		
					I	II	III
0757-0180	R:FXD MF 31.6 1 1/8W	5905-972-4907	28480	0757-0180			1
0757-0198	R:FXD MF 100 1 1/2W	5905-830-6188	28480	0757-0198			1
0757-0199	R:FXD MF 21.5K 1 1/8W	5905-981-7513	28480	0757-0199			2
0757-0274	R:FXD MF 1.21K 1 1/8W	5905-858-9105	28480	0757-0274			1
0757-0276	R:FXD MF 61.9 1 1/8W	5905-479-4628	28480	0757-0276			1
0757-0278	R:FXD MF 1.78K 1 1/8W	5905-110-0851	28480	0757-0278			1
0757-0279	R:FXD MF 3.16K 1 1/8W	5905-221-8310	28480	0757-0279			1
0757-0288	R:FXD MF 3.09K 1 1/8W	5905-891-4211	28480	0757-0288			2
0757-0289	R:FXD MF 13.3K 1 1/8W	5905-998-1908	28480	0757-0289			1
0757-0316	R:FXD MF 42.2K 1 1/8W	5905-981-7475					1
0757-0394	R:FXD MF 51.1 1 1/8W	5905-412-4036	14674	C4			
0757-0416	R:FXD MF 511 1 1/8W	5905-998-1795	28480	0757-0416			1
0757-0417	R:FXD MF 562 1 1/8W	5905-781-2980					1
0757-0419	R:FXD MF 681 1 1/8W	5905-078-1549	28480	0757-0419			1
0757-0424	R:FXD MF 1.10K 1 1/8W	5905-858-6797	28480	0757-0424			1
0757-0428	R:FXD MF 1.62K 1 1/8W	5905-998-1794	14674	C4			1
0757-0438	R:FXD MF 5.11K 1 1/8W	5905-929-2529	14674	C4			1
0757-0439	R:FXD MF 6.81K 1 1/8W	5905-990-0301	28480	0757-0439			2
0757-0440	R:FXD MF 7.50K 1 1/8W	5905-858-6795	14674				1
0757-0447	R:FXD MF 16.2K 1 1/8W	5905-981-7530					1
0757-0458	R:FXD MF 51.1K 1 1/8W	5905-997-9580	28480	0757-0458			1
0757-0460	R:FXD MF 61.9K 1 1/8W	5905-858-8959	28480	0757-0460			1
0757-0482	R:FXD MF 511K 1 1/8W	5905-857-0060	28480	0757-0482			1
0757-0814	R:FXD MF 511 1 1/2W	5905-255-3750	28480	0757-0814			1
0757-1078	R:FXD MF 1/57K 1 1/2W	5905-931-4069	28480	0757-1078			1
0757-1094	R:FXD MF 1.47K 1 1/8W	5905-917-0580	28480	0757-1094			1
0811-1666	R:FXD WW 1.0 5/ 2W	5905-402-7082	28480	0811-1666			1
0811-1674	R:FXD WW 4.7 5/ 2W		28480	0811-1674			1
0811-1678	R:FXD WW 10.0 5/ 2W		28480	0811-1678			1
0811-2844	R:FXD WW 2.5 5/ 10W	5905-254-3267	28480	0811-1678			1
0818-0056	R:FXD WW 1.0 3/ 11W		28480	0818-0056			1
0818-0057	R:FXD WW 2.0 3/ 11W		28480	0818-0057			1
0950-1018	Tape Head - Record						

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Hewlett-Packard Part Number	Description	FSN	Mfg. Code	Manufacturer's Part Number	Level		
					I	II	III
0950-1019	Tape Head - Reproduce						1
1120-1508	Meter: 1 MA		28480	1120-1508			1
1200-0080	Insulator: Transistor MTG	5961-976-4893	71785	294834	1		2
1205-0011	Heat Dissipator for T05 & T09 Cases		98978	TX BF - 032 - 0258	1		1
1250-0118	Connector: BMC	5935-917-5504	28480	1230-0118			1
1251-0070	Jack - Phone	5935-954-5939	82389	2J - 1581	1		1
1251-0131	Connector Test Point	5935-448-9287			1		1
1251-1122	Connector: Tip Jack Brown		74970	105-758	1		2
1251-1123	Connector: Tip Jack Red		74970	105-752	1		2
1251-1124	Connector: Tip Jack Orange		74970	105-756	1		2
1251-1125	Connector: Tip Jack Yellow		74970	105-757	1		2
1251-1126	Connector: Tip Jack Dk Green		74970	105-754	1		2
1251-2435	Pin				1		1
1251-2438	Pin				1		1
1400-0010	Clip: Fuse		71400	#4450	1		1
1400-0084	Fuse Holder: Extractor Post Type	5920-811-8861	75915	342014			1
1410-0041	Bearing - Ball	6625-804-9707					1
1410-0173	Bearing - Ball						1
1410-0766	Sleeve: Bearing						1
1450-0150	Light: Indicator White		72765	X11-604	1		1
1450-0167	Lampholder: 81 - Pin Connector		72765	4428-002	1		2
1450-0444	Light: Indicator - 18V at 40 MA		72765	10 604	1		2
1460-0176	Spring - Tension						1
1460-1112	Spring - Extension						1
1460-1113	Spring - Compression						1
1460-1172	Spring - Tension Arm						1
1480-0060	Roll Pin						1
1480-0080	Roll Pin						1
1500-0254	Drive Belt				1		1
1820-0054	Integrated Circuit: Quad 2 Input NAND		01295	SN 7400N	2		2
1820-0055	Integrated Circuit: Dec. Counter	5962-493-5961	01295	SN 7490N	2		2
1820-0068	Integrated Circuit			SN 7410	2		2
1820-0069	Integrated Circuit			SN 7420N	2		2
1820-0077	Integrated Circuit: D Edge Trigger F/F		01295	SN 7474N	2		2

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Hewlett-Packard Part Number	Description	FSN	Mfg Code	Manufacturer's Part Number	Level		
					I	II	III
1820-0239	Integrated Circuit			MC 3002	2		2
1853-0012	Q:SI PNP		01295	2N 2904A	2		2
1853-0020	Q:SI PNP (Selected from 2N3702)	5961-904-2540	01295	SKA-1123	2		2
1853-0027	Q:SI PNP	5061-193-4463	04713	SN4787	2		2
1853-0031	Q:SI PNP				2		2
1853-0036	Q:SI PNP	5961-401-6703	04713	SPS 3612	2		3
1853-0073	Q:SI PNP		04713	SJE 115	2		2
1853-0214	Q:SI		56289	TD-501	2		2
1853-0215	Q:SI NPN	5961-401-6704	04713	SPS 3611	2		2
1854-0022	Q:SI (Selected from 2N2102)	5961-917-0660	01295	SG 1294	2		2
1854-0039	Q:SI NPN	5961-985-9073	04713	2N 3053	2		2
1854-0053	Q:SI NPN		04713	2N 2218	2		3
1854-0063	Q:SI NPN		04713	2N 3055	2		2
1854-0071	Q:SI NPN (Selected from 2N3704)	5961-928-3161	28480	1854-0071	2		4
1854-0260	Q:SI NPN		04713	2N 3227	2		2
1854-0300	Q:SI NPN		04713	SJE 116	2		2
1854-0375	Q:SI NPN		56289	TD-201	2		2
1901-0026	Diode: Silicon 0.75 A 200 PIV	5961-060-8638	28480	1901-0026	2		2
1901-0040	Diode: Silicon 30 MA 30 WV	5961-965-5917	07263	FDG 1088	2		4
1901-0049	Diode: Silicon 50 PIV	5961-911-9275	28480	1901-0049	2		2
1901-0496	Diode: Silicon 100 PIV 12A	5961-875-7464	04713	MR 1121	2		3
1902-0184	Diode: Breakdown: Silicon 16.2V 5%	5961-835-3237	28480	1902-0184	2		2
1902-0785	Diode: Silicon 9.09V	5961-891-4244		1902-0785	2		2
1902-3048	Diode: Breakdown: Silicon 3.48V 5%		28480	1902-3048	2		2
1902-3182	Diode: Breakdown: Silicon 12.1V 5%	5961-229-1966			2		2
1902-3203	Diode: Breakdown: Silicon 14.7V 5%	5961-458-4507	28480	1902-3203	2		2
2100-0078	R:Var Comp 500 OHM 30% Lin .3W		28480	2100-0078	1		2
2100-1756	R:Var WW 200 OHM 10% 1/2W	5905-402-1156	28480	2100-1756	1		1
2100-1758	R:Var WW 1K OHM 10% 1/2W	5905-228-5989	28480	2100-1758	1		1
2100-1759	R:Var WW 2K OHM 10% 1/2W	5905-221-8472	28480	2100-1759	1		1
2100-1760	R:Var WW 5K OHM 10% 1/2W	5905-229-1971	28480	2100-1760	1		1

BASE TRANSPORT

Hewlett-Packard Part Number	Description	FSN	Mfg Code	Manufacturer's Part Number	Level		
					I	II	III
2100-1815	R:Var 10K OHM 20% 1/4W		28480	2100-1815	1		1
2100-2815	R:Var Comp 100K OHM 20% 1.12W		28480	2100-2815	1		1
2110-0059	Fuse: Cartridge 1-1/2A 510 B10		71400	MDL 1.5	5		5
2110-0060	Fuse: 0.75A 250V		75915	312.750	5		5
2140-0216	Lamp 24V				2		2
3100-2620	Switch: Calibrator 9 Position		28480	3100-2620	1		1
3100-2621	Switch: Rotary		28480	3100-2621			1
3101-0070	Switch: Slide	5930-982-7623	79727	G-126			1
3101-1234	Switch: Slide DPDT 0.5A 125 AC/DC	5930-406-8746	82389	11A-1242			1
3101-1240	Switch		28480	3101-1240			1
3101-1263	Switch: Slide 4PDT 0.5 Amp 125 VDC		82389	11E-1032			1
3130-0337	Shaft: Switch						1
9140-0137	Coil/Choke 1000 OH 5	5950-984-3433	99800	2500-28	1		1
9160-0078	Speaker: 3 - ineq. 8 OHM		28480	9160-0078			1
03663-60010	Induction: 300 MH		28480	03663-60010	1		1
03960-20010	Pinchroller Cap				1		1
03960-20420	Pinchroller				1		1
03960-40070	Shaft: RH Lock						1
03960-40071	Shaft: LH Lock						1
03960-60090	Shield: Interhead						1
03960-60810	Motor PC (Reel & Capstan)						1
03960-60100	Capstan Assembly						1
03960-60130	Power Supply Reg. Assy		28480	03960-60130		1	1
03960-60140	Servo Amp Assy 3960A/B/E/F/G		28480	03960-60140		1	1
03960-60145	Servo Amp Assy 3960C/D/H/J/K		28480	03960-60145		1	1
03960-60200	Preamp Assy		28480	03960-60200		1	1
03960-60210	Meter Amplifier Assy		28480	03960-60210		1	1
03960-60250	Calibrator Switch Assy		28480	03960-60250		1	1
03960-60310	Switch Assy: Function		28480	03960-60310		1	1
03960-60460	Delay Circuit Assy		28480	03960-60460		1	1
	OPTIONAL ACCESSORIES						
3667A	Bias Osc					1	1
13063A	Voice Channel					1	1

F.M. ELECTRONICS

Hewlett-Packard Part Number	Description	FSN	Mfg Code	Manufacturer's Part Number	Level		
					I	II	III
0150-0096	C:FXD Cer 0.05 UF +80 -20 100 DCW	5910-542-1796	91418	5C50815-CML	1		1
0150-0121	C:FXD Cer 0.1 UF +80 -20 50 VDCW	5910-950-6822	56289		1		1
0180-0106	C:FXD Elect 60 UF 20 6 VDCW	5910-127-1668			1		1
0180-0116	C:FXD Elect 6.8 UF 10 35 VDCW	5910-936-1332			1		1
0180-0161	C:FXD Elect 3.3 UF 20 35 VDCW	5910-809-8667			1		1
0180-0228	C:FXD Elect 22 UF 10 15 VDCW				1		1
0180-0229	C:FXD Elect 33 UF 10 10 VDCW	5910-403-2449			1		1
0180-0291	C:FXD Elect 1.0 UF 10 35 VDCW	5910-931-7055			1		1
0180-0374	C:FXD Elect 10 UF 10 20 VDCW	5910-931-7050			1		1
0340-0190	Insulator; Transistor				2		2
0490-0326	Relay; Reed				1		1
0698-0082	R:FXD MF 464 1/2 1/8W	5905-974-6075	14674				1
0698-0083	R:FXD MF 1.96K 1/2 1/8W	5905-407-0052					1
0698-0084	R:FXD MF 2.15K 1/2 1/8W	5905-974-6073	14674				1
0698-3132	R:FXD MF 251	5905-828-0388	14674				1
0698-3151	R:FXD MF 2.87K 1/2 1/8W	5905-246-8674					1
0698-3152	R:FXD MF 3.48K 1/2 1/8W	5905-998-1809					1
0698-3153	R:FXD MF 3.83K 1/2 1/8W	5905-974-6081	91637	MFF - 1/10 - 32			1
0698-3155	R:FXD MF 4.64K 1/2 1/8W	5905-976-3418	91637	MFF - 1/10 - 32			1
0698-3156	R:FXD MF 14.7K 1/2 1/8W	5905-978-6084					1
0698-3160	R:FXD MF 31.6K	5905-974-6078					1
0698-3260	R:FXD MF 464K 1/2 1/8W	5905-998-1809					1
0698-3266	R:FXD MF 237K 1/2 1/8W						1
0698-3405	R:FXD MF 422 1/2 1/2W						1
0698-3440	R:FXD MF 196 1/2 1/8W	5905-828-0377	91637	MF 1/10 - 32			1
0698-3441	R:FXD MF 215 1/2 1/8W	5905-974-6076	91637	MF 1/10 - 32			1
0698-3444	R:FXD MF 316 1/2 1/8W	5905-974-6079					1
0698-3449	R:FXD MF 28.7K 1/2 1/8W	5905-828-0397					1
0698-3450	R:FXD MF 42.2K 1/2 1/8W	5905-826-3262					1
0698-3454	R:FXD MF 215K 1/2 1/8W	5905-974-6077					1
0698-3457	R:FXD MF 316K 1/2 1/8W	5905-491-4586					1
0698-4037	R:FXD MF 46.4 1/2 1/8W	5905-981-7527					1
0707-0200	R:FXD MF 5.62K 1/2 1/8W	5905-891-4224					1

F.M. ELECTRONICS

Hewlett-Packard Part Number	Description	FSN	Mfg Code	Manufacturer's Part Number	Level		
					I	II	III
0757-0274	R:FXD MF 1.21K 1% 1/8W	5905-858-9105					1
0757-0278	R:FXD MF 1.78K 1% 1/8W	5905-110-0851					1
0757-0279	R:FXD MF 3.16K 1% 1/8W	5905-221-8310					1
0757-0410	R:FXD MF 511 1% 1/8W	5905-998-1795					1
0757-0417	R:FXD MF 562 1% 1/8W	5905-858-9417	14674				1
0757-0428	R:FXD MF 1.62K 1% 1/8W	5905-917-0578	14674				1
0757-0438	R:FXD MF 5.11K 1% 1/8W	5905-929-2529	14674				1
0757-0439	R:FXD MF 6.81K 1% 1/8W	5905-990-0303					1
0757-0441	R:FXD MF 8.25K 1% 1/8W	5905-858-6799	14678				1
0757-0458	R:FXD MF 51.1K 1% 1/8W	5905-997-9580					1
0757-0464	R:FXD MF 30.9K 1% 1/8W	5905-420-7155					1
0757-0482	R:FXD MF 511K 1% 1/8W	5905-857-0060					1
1205-0011	Heat Dissipator: for T05 & T09 Cases		98978	TKBF-032-0258	1		1
1205-0212	Heat Sink: Dual Unit				1		1
1820-0055	Integrated Circuit: Decade Counter	5962-493-5961	01295	SN7490N	2		2
1820-0077	Integrated Circuit: "D" Edge Trig F/F		01295	SN7474N	2		2
1820-0317	Integrated Circuit		04713	S04712PK	2		2
1853-0036	Q: SI NPN	5961-401-6703	04713	SPS 3612	2		3
1854-0039	Q: SI NPN	5961-985-9073	04713	2N3053	2		2
1854-0071	Q: SI NPN (selected from 2N3704)	5961-928-3161			2		3
1854-0215	Q: SI NPN	5961-401-6704	04713	SPS 3611	2		2
1901-0040	Diode SI 30 MA 30 MV	5961-965-5917	07263	FDG 1080	2		3
1902-0041	Diode: Breakdown 5.11V 5.400 MV	5961-858-7372			2		2
2100-1739	R: Var WW 5K 10% 1W	5905-407-0079			1		1
2100-1757	R: Var WW 500 10% 1/2W				1		1
2100-1972	R: Var WW 20K 10% 1W				1		1
9100-1649	Coil/Choke 620 UH 54				1		1
9140-0114	Coil/Fxd RF 10 UH				1		1
9140-0210	Coil/Fxd RF 100 UH 54				1		1
03662-60010	Transformer						1
See Table I	P.C. Card - FM Record					1	1
See Table I	P.C. Card - FM Reproduce					1	1

DIRECT ELECTRONICS

Hewlett-Packard Part Number	Description	FSN	Mfg Code	Manufacturer's Part Number	Level		
					I	II	III
0180-0058	C:FXD Elect 50 uf -10% +100% 25 VDCW	5910-027-7069	56289	3005066025 DD 4M2	I		
0180-0059	C:FXD Elect 10 uf +75-10% 25 VDCW	5910-827-1218			I		
0180-0081	C:FXD Elect 100 uf +100%-10% 15 VDCW	5910-916-8071	56289	30107G015 DD4	I		
0180-0195	C:FXD Elect 0.33 uf 20% 35 VDCW				I		
0180-0228	C:FXD Elect 22 uf 10% 15 VDCW				I		
0180-1800	C:FXD Elect 100 uf +100%-10% 6 VDCW	5910-126-1696	56289	(300603) DSM	I		
0490-0326	Relay: Reed				I		
0698-0082	R:FXD MF 464 1/2 1/8W	5905-974-6075	14674				
0698-0084	R:FXD MF 2.15K 1/2 1/8W	5905-974-6073	14674				
0698-0085	R:FXD MF 2.61K 1/2 1/8W	5905-998-1814					
0698-3154	R:FXD MF 4.22K 1/2 1/8W	5905-891-4215					
0698-3155	R:FXD MF 4.64K 1/2 1/8W	5905-976-3418	91637	MFF - 1/10 - 32			
0698-3156	R:FXD MF 14.7K 1/2 1/8W	5905-974-6084					
0698-3157	R:FXD MF 19.6K 1/2 1/8W	5905-891-4214	14674				
0698-3160	R:FXD MF 31.6K 1/2 1/8W	5905-974-6078	14674				
0698-3161	R:FXD MF 38.3K 1/2 1/8W	5905-974-6082	14674				
0698-3396	R:FXD MF 38.3 1/2 1/2W	5905-407-0055					
0698-3403	R:FXD MF 348 1/2 1/8W						
0698-3441	R:FXD MF 215 1/2 1/8W	5905-974-6076					
0698-3444	R:FXD MF 348 1/2 1/8W	5905-974-6079					
0698-4037	R:FXD MF 46.4 1/2 1/8W	5905-981-7527					
0757-0180	R:FXD MF 31.6 1/2 1/8W	5905-972-4907					
0757-0199	R:FXD MF 21.5K 1/2 1/8W	5905-981-7513					
0757-0200	R:FXD MF 5.62K 1/2 1/8W	5905-891-4224					
0757-0279	R:FXD MF 3.16K 1/2 1/8W	5905-221-8310					
0757-0289	R:FXD MF 13.3K 1/2 1/8W	5905-998-1908					
0757-0290	R:FXD MF 6.19K 1/2 1/8W	5905-858-8826					
0757-0394	R:FXD MF 51.1 1/2 1/8W	5905-412-4036	14674				
0757-0416	R:FXD MF 511 1/2 1/8W	5905-998-1795					
0757-0424	R:FXD MF 1.10K 1/2 1/8W	5905-858-6797					
0757-0438	R:FXD MF 5.11K 1/2 1/8W	5905-929-2529	14674				
0757-0439	R:FXD MF 6.81K 1/2 1/8W	5905-990-0303					
0757-0460	R:FXD MF 6.19K 1/2 1/8W	5905-858-8959					
0757-0466	R:FXD MF 110K 1/2 1/8W	5905-118-7906					
0757-1090	R:FXD MF 261 1/2 1/8W						
0811-1228	R:FXD WW 27 5% 3W						

DIRECT ELECTRONICS

Hewlett-Packard Part Number	Description	FSN	Mfg Code	Manufacturer's Part Number	Level		
					I	II	III
0811-1668	R: FXD WW 1.5 5A 2W				1		1
1200-0080	Insulator: Transistor MTG	5961-976-4893	71785	294834	2		2
1853-0036	Q: SI PNP	5961-401-6703	04713	SPS 3612	2		2
1853-0073	Q: SI PNP		04713	SJE 115	2		2
1854-0039	Q: SI NPN	5961-985-9073	04713	2N 3053	2		2
1854-0053	Q: SI NPN		04713	2N 2218	2		2
1854-0071	Q: SI NPN (selected from 2N3704)	5961-928-3161			2		2
1854-0300	Q: SI NPN				2		2
1901-0040	Diode: Silicon 30 MA 30 W	5961-965-5917	07263	FDG 1088	2		2
2100-1739	R: VAR WW 5K 10% 1W	5905-229-1971			1		1
2100-1757	R: VAR WW 500 10% 1/2W	5905-407-0067			1		1
2100-2852	R: VAR 1K 10%				1		1
See Table 1	P.C. Card Direct Reproduce						
See Table 1	P.C. Card Direct Record						

Table 1 HP 3960 Instrumentation Tape Recorder Configuration Table

TAPE SPEED (Inches Per Second)	FM RECORD AMPLIFIER PRINTED CIRCUIT BOARD	FM REPRODUCE AMPLIFIER PRINTED CIRCUIT BOARD	DIRECT RECORD AMPLIFIER PRINTED CIRCUIT BOARD	DIRECT REPRODUCE AMPLIFIER PRINTED CIRCUIT BOARD	SERVO AMPLIFIER PRINTED CIRCUIT BOARD	BIAS OSCILLATOR*
15/16, 3-3/4, 15 (STANDARD OCTAVE)	3660A	3663A	3662A	3665A	03960-60140	3667A
1.5, 3, 15 (STANDARD DECADE)	3661A	3664A	3662A	3666A	03960-60145	3667A
15/16, 1-7/8, 3-3/4 (OPTION - 001)	3660A	3663A-001	3662A	3665A-001	03960-60140	3667A
15/16, 1-7/8, 7-1/2 (OPTION - 002)	3660A	3663A-002	3662A	3665A-002	03960-60140	3667A
15/16, 1-7/8, 15 (OPTION - 003)	3660A	3663A-003	3662A	3665A-003	03960-60140	3667A
15/16, 3-3/4, 7-1/2 (OPTION - 004)	3660A	3663A-004	3662A	3665A-004	03960-60140	3667A
15/16, 7-1/2, 15 (OPTION - 005)	3660A	3663A-005	3662A	3665A-005	03960-60140	3667A
1-7/8, 3-3/4, 7-1/2 (OPTION - 006)	3660A	3663A-006	3662A	3665A-006	03960-60140	3667A
1-7/8, 3-3/4, 15 (OPTION - 007)	3660A	3663A-007	3662A	3665A-007	03960-60140	3667A
1-7/8, 7-1/2, 15 (OPTION - 008)	3660A	3663A-008	3662A	3665A-008	03960-60140	3667A
3-3/4, 7-1/2, 15 (OPTION - 009)	3660A	3663A-009	3662A	3665A-009	03960-60140	3667A

*Bias oscillator is used in all recorders equipped with one or more direct record amplifier/s. Recorders equipped with all FM channels contain dummy oscillator printed circuit board, part number 03960-20930.

TABLE 2 - CODE LIST OF MANUFACTURERS

<u>Code No.</u>	<u>Manufacturer</u>	<u>Address</u>
01295	Texas Instruments, Inc Transistor Products Div.	Dallas, Texas
04713	Motorola, Inc Semiconductor Prod. Div.	Phoenix, Arizona
07263	Fairchild Camera & Inst. Corp Semiconductor Div.	Mountain View, California
14674	Corning Glass Works	Corning, New York.
28480	Hewlett-Packard Co.	Palo Alto, California
56289	Sprague Electric Co.	North Adams, Massachusetts
70309	Allied Control Co.	New York, New York
71400	Bussmann Manufacturing Div of McGraw-Edison Co.	St. Louis, Missouri
71785	Cinch Mfg. Co. Howard B. Jones Div.	Chicago, Illinois
72765	Drake Mfg. Co.	Harwood Heights, Illinois
74970	E.F. Johnson Co.	Waseca, Minnesota
75915	Littlefuse, Inc.	Des Plaines, Illinois
82389	Switchcraft, Inc.	Chicago, Illinois
91418	Radio Materials Co.	Chicago, Illinois
91637	Dale Electronics, Inc.	Columbus, Nebraska
98978	International Electronic Research Corp.	Burbank, California
99800	Delevan Electronics Corp.	East Aurora, New York