

RECOMMENDED SPARE PARTS LIST
MODEL 4512

CKT. REF. SYMBOL	QTY	PART NO.	DESCRIPTION	MANUFACTURER
	1	11233-005	Amplifier Assembly	Non Linear Systems
	1	22013-015	Model 201, 10 V Auto Calibrator	Non-Linear Systems
K1A-B	2	A12-32	Chopper, 60 cps	Stevens-Arnold
	3	Min-1	Cell, standard	Eppley
T1	2	R-7A	Transformer, power	Triad
L1 & L2	2	C-3X	Reactor, filter choke	Triad
C1, C2, C3	2	TVL3780	Capacitor, electrolytic triple, 20x20x30x450 V	Sprague
	1	11227-005	Amplifier Assembly	Non-Linear Systems
C4, C5, C9,	8	11006-091	Capacitor, electrolytic	Non-Linear Systems
C13, C6, C7, C4, C2			20/20 MFD 250V DC	
K1	2	CH-457	Chopper, 60 cps, 6.3V AC	Stevens-Arnold
	1	11127-006	Power Supply Assembly	Non-Linear Systems
K1	2	115N010T	Relay, thermal time delay	Amperite
CRI, 2, 3, 4, 5, 6	12	K200	Diode, semiconductor	Sarkes-Tarzian
T1	2	11006-030	Transformer, power	Non-Linear Systems
S1	2	11021-096	Switch	Non-Linear Systems
F1	20	312002	Fuse, 2 amp	Littelfuse
J3	2	3301-CK2KA	Connector, receptacle, polarized	Components Mfd. Service
C3	2	MDL 1.5-12M	Capacitor, 12 Mfd., 150V DC	Astron
	1	11227-007	Stepping Switch Assembly	Non-Linear Systems
K1, 2, 3, 4, 6	3	11021-086	Stepping Switch Subassembly, 6 level	Non-Linear Systems
K5		11021-088	Stepping Switch Subassembly, 8 level	Non-Linear Systems
K7	2	6C1Q303G	Relay	Globe Electric Mfg.
	1	18030-015	Converter Assembly, Model 101A	Non-Linear Systems
CRI, 2	6	1N458	Diode, semiconductor	Hughes (HD6007)
	1	18014-113	Switch, rotary, 4 sec., 4 position	Non-Linear Systems
C29	3	BRI001	Capacitor, electrolytic, 1000 mfd. 15 V DC	Cornell-Dubilier
C18	3	TC310	Capacitor, ", 1000 mfd., 3V DC	Mallory
C27	2	35RTK50	Capacitor, ", 50 mfd., 350V DC	Industrial Condenser Corp.
C23, 24	4	35RTK50	Capacitor, ", 50 mfd., 350V DC	Industrial Condenser Corp.

NOTE: Factory recommend replacements for C27 40 mfd., C23 & C24, 100 mfd., are shown as 50 mfd.

PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE AND ARE STATED F.O.B. DEL MAR, CALIFORNIA. MINIMUM BILLING: \$10.00

Resistors. 111K $\frac{1}{2}$ W P/N: PW-1719 - \$4.00
2.3K $\frac{1}{2}$ W P/N: PW-1719 - \$4.00

OVER

NON-LINEAR SYSTEMS, INC.
Del Mar, California

March 1, 1960

RECOMMENDED SPARE PARTS LIST
MODEL 4512

CKT. REF. SYMBOL	QTY	PART NO.	DESCRIPTION	MANUFACTURER	PRICE EACH	DELIVERY
K1A-B	1	22013-015	Model 201, 10 V Auto Calibrator	Non-Linear Systems	\$ 770.00	10 weeks
	2	A12-32	Chopper, 60 cps	Stevens-Arnold	72.00	Stock
	3	Min-1	Cell, standard	Eppley	20.00	Stock
T1	2	R-7A	Transformer, power	Triad	15.00	Stock
L1 & L2	2	C-3X	Reactor, filter choke	Triad	4.80	Stock
C1, C2, C3	2	TVL3780	Capacitor, electrolytic triple, 20x20x30x450 V	Sprague	6.50	Stock
C4, C5, C9, C13, C6, C7, C4, C2	1	11227-005	Amplifier Assembly	Non-Linear Systems	363.00	10 weeks
	8	11006-091	Capacitor, electrolytic 20/20 MFD 250V DC	Non-Linear Systems	2.00	Stock
K1	2	CH-457	Chopper, 60 cps, 6.3V AC	Stevens-Arnold	90.00	Stock
K1	1	11127-006	Power Supply Assembly	Non-Linear Systems	200.00	10 weeks
	2	115N010T	Relay, thermal time delay	Amperite	5.00	Stock
C1, 2, 3, 4, 5, 6	12	K200	Diode, semiconductor	Sarkes-Tarzian	1.50	Stock
T1	2	11006-030	Transformer, power	Non-Linear Systems	21.60	Stock
S1	2	11021-096	Switch	Non-Linear Systems	11.40	Stock
F1	20	312002	Fuse, 2 amp	Littelfuse	.30	Stock
J3	2	3301-CK2KA	Connector, receptacle, polarized	Components Mfd. Service	.30	Stock
C3	2	MDL 1.5-12M	Capacitor, 12 Mfd., 150V DC	Astron	26.00	Stock
K1, 2, 3, 4, 6	1	11227-007	Stepping Switch Assembly	Non-Linear Systems	2,717.00	10 week
	3	11021-086	Stepping Switch Subassembly, 6 level	Non-Linear Systems	60.00	Stock
		11021-088	Stepping Switch Subassembly, 8 level	Non-Linear Systems	70.00	Stock
K5	2	6C1Q303G	Relay	Globe Electric Mfg.	45.60	Stock
C1, 2	1	18030-015	Converter Assembly, Model 101A	Non-Linear Systems	1,330.00	10 weeks
	6	1N458	Diode, semiconductor	Hughes (HD6007)	11.00	Stock
C29	1	18014-113	Switch, rotary, 4 sec., 4 position	Non-Linear Systems	9.80	Stock
	3	BR1001	Capacitor, electrolytic, 1000 mfd. 15 V DC	Cornell-Dubilier	3.20	Stock
C18	3	TC310	Capacitor, ", 1000 mfd., 3V DC	Mallory	3.10	Stock
C27	2	35RTK50	Capacitor, ", 50 mfd., 350V DC	Industrial Condenser Corp.	1.50	Stock
C23, 24	4	35RTK50	Capacitor, ", 50 mfd., 350V DC	Industrial Condenser Corp.	1.50	Stock

NOTE: Factory recommend replacements for C27 40 mfd., C23 & C24, 100 mfd., are shown as 50 mfd.

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Model 4513

<u>NAME</u>	<u>PART NO.</u>	<u>PRICE EACH</u>	<u>UNIT REQ.</u>	<u>SPARE REQ.</u>
Armature Assembly, Std. Switch	RP8008	\$ 12.60	6	100
Battery, Mercury	EM-1	.80	8	160
Bulb (GLEC)	328	.75	46	230
Cell, Epply, Std.	Min 1	20.00	1	5
Chopper (SA)	CH457	90.00	1	5
Condenser	1000V-01	.45	2	20
Diodes, matched pair	1N429-6	60.00	1	5
Filter, readout	11006-055	4.00	1	5
Holder, fuse	342003	1.10	1	5
Oil, NLS	260		1 qt.	5 qt.
Potentiometer, .1 meg.	CR7734	2.10	1	5
Potentiometer, 250 phm	DH2717	2.00	1	----
Potentiometer, 5k	SM500	32.00	1	5
Potentiometer, 2k ohm	025-2K	12.30	1	5
Potentiometer, 20k ohm	025-20K	15.00	1	5
Rectifier	1N2071	2.70	6	30
Relay	115N010T	5.00	1	5
Relay, oil filled	6C1Q303G	46.00	1	5
Spring, drive, std. switch	RP8717	.60	6	100
Switch, calibrate, push button	11021-019	4.00	1	5
Switch, calibrate, rotary	11021-033	4.00	1	5
Stepping switch, 6 level	11021-086	60.00	5	45
Stepping switch, 8 level	11021-088	70.00	1	5
Tube	2D21W	4.90	2	5
Tube	12AX7	2.30	2	5
Tube	5696	3.75	2	5
Tube	5751	5.95	1	5
Tube	6073	5.30	1	5
Tube	6074	9.50	1	5
Tube	6627	9.00	1	5

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NOTES: Unit Req. - Total requirements per voltmeter.

Spare Req.- Recommended quantity to maintain -- 100 voltmeters between overhauls.