

MODEL EC22 ELECTRONIC CROSSOVER
SCHEMATIC

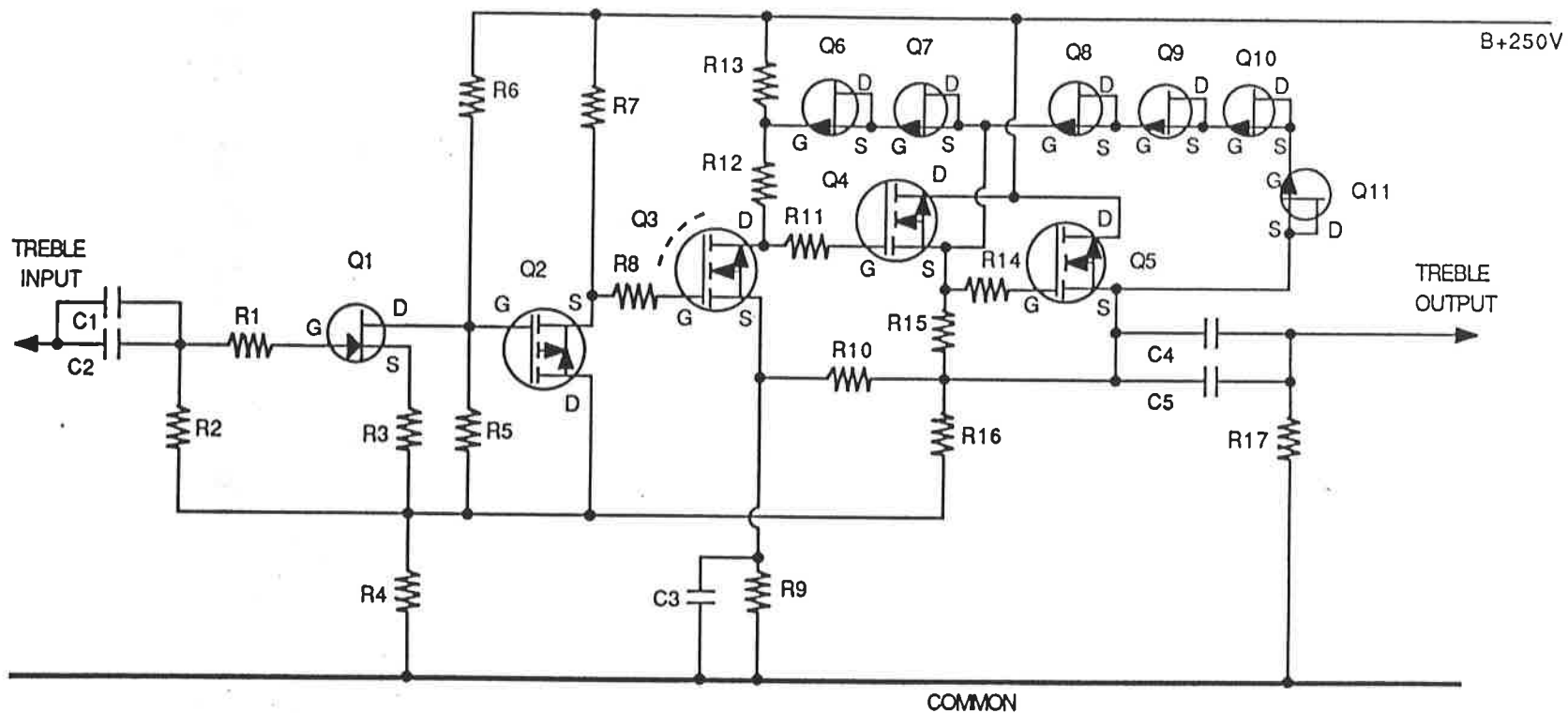
3-7-90

audio research corporation

6801 SHINGLE CREEK PARKWAY
MINNEAPOLIS, MINNESOTA 55430

TREBLE CIRCUIT

RIGHT CHANNEL SHOWN



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EC22 CROSSOVER - (TREBLE CIRCUIT) - PAGE 1 of 4 PAGES

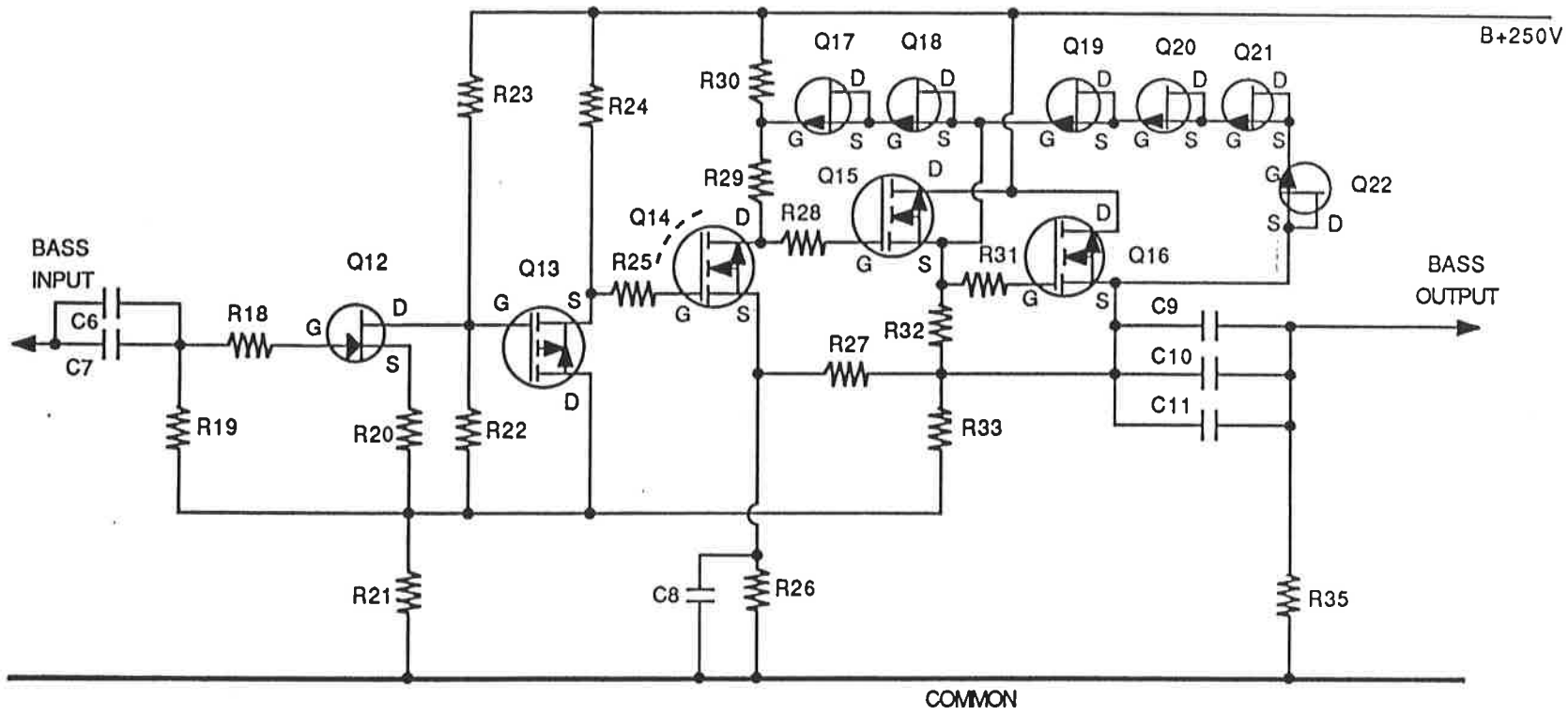
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BASS CIRCUIT

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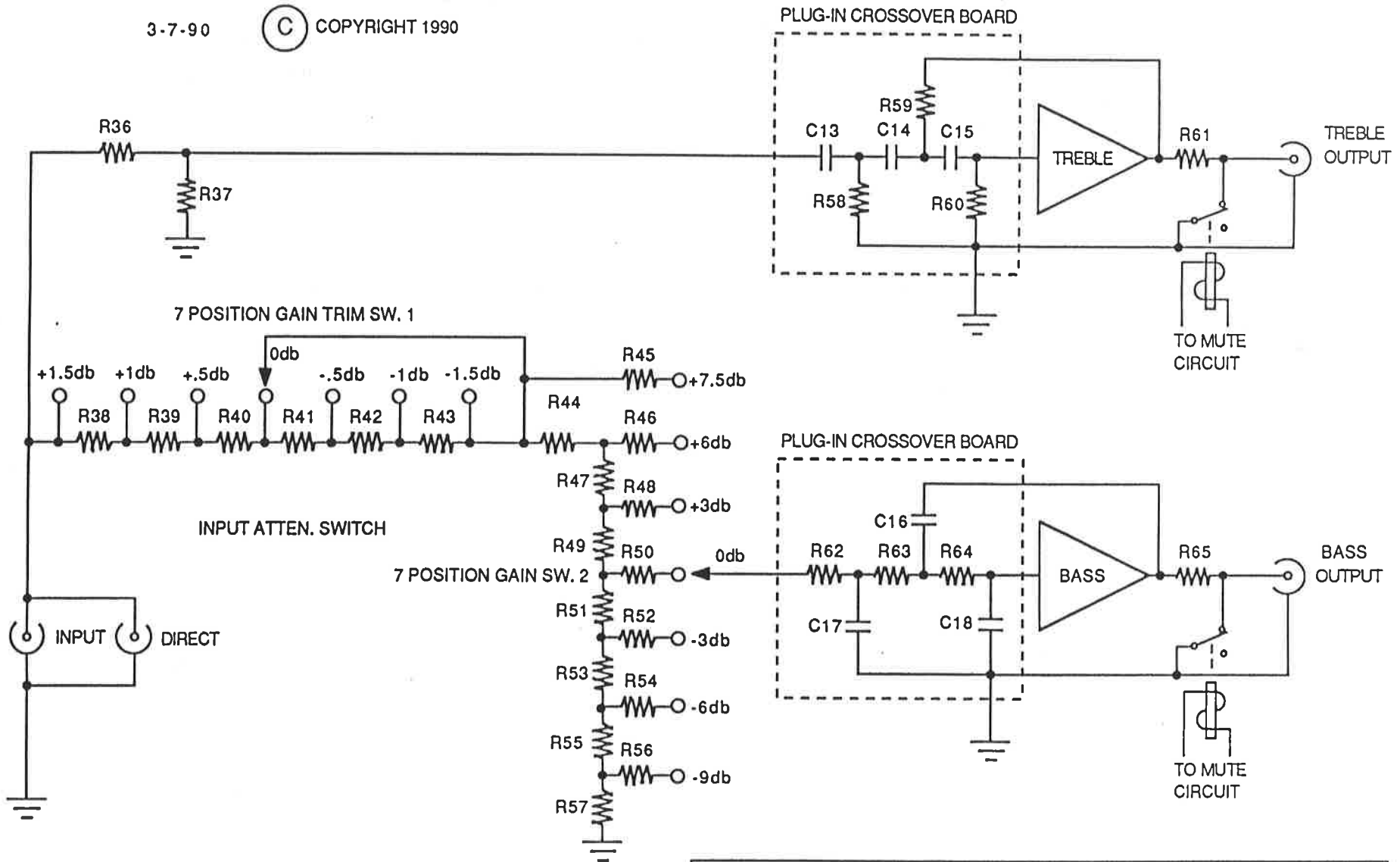
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CONTROL CIRCUITS
RIGHT CHANNEL SHOWN

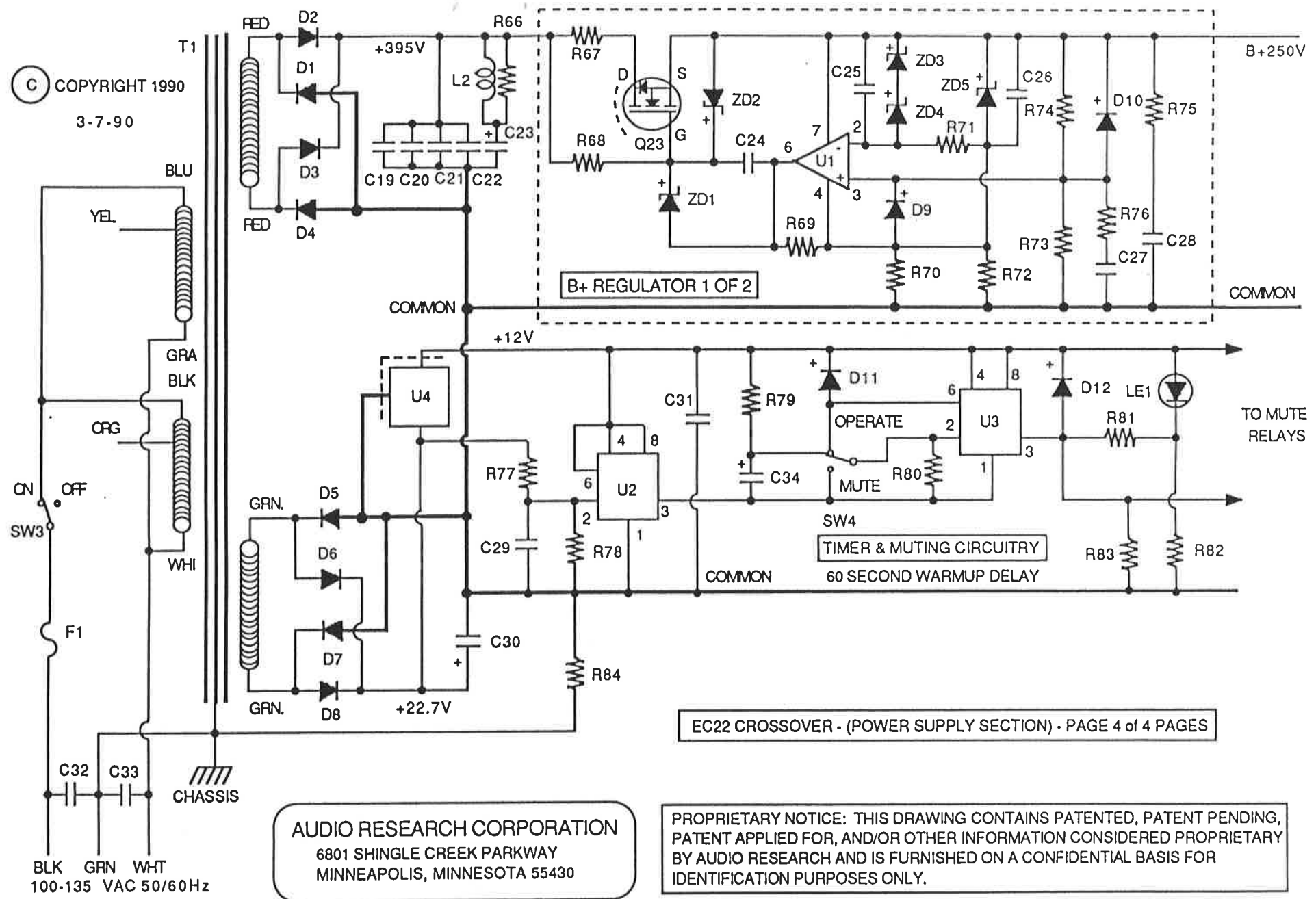
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BLK GRN WHT
100-135 VAC 50/60Hz

PARTS LIST

As of FEB 5 90

PRODUCT: EC22

NOTES:

Schematic Symbol	Quantity	ARC Part #	Description
CAPACITORS			
C 1,2,5,7,10,11,21,22,27	16	53100406	CAP. .01 UF+/-10% 630V
C 3,8	4	53200003	CAP. 2 PF STY.
C 4,19,20	4	53100608	CAP. 1.0 UF 1-20% 425V TYPE V
C 6	2	53470510	CAP. .47 UF 425V IAR
C 9	2	53500606	CAP. 5 UF+/-20% 250V
C 12	2	50470700	CAP. 47 UF 250V
C 23	1	50100802	CAP. 100 UF 450V
C 24,25,26	6	53220507	CAP. .22 UF 10% 160V
C 28	2	53200602	CAP. 2 UF +/-10% 450V
C 29	1	53220506	CAP. .22 UF 100V
C 30	1	50150803	CAP. 150 UF 20% 50V
C 31	1	53100505	CAP. .1 UF 10% 63V MPCN
C 32,33	2	52500300	CAP. .005 UF 20% CERAMIC DISC
C 34	1	51330702	CAP. .33 UF+/-10% 16V
DIODES			
D 1,2,3,4	4	30502200	IN4006
D 5,6,7,8	4	30500400	IN4005 GENERAL INSTRUMENT
D 9,10,11,12	6	30500910	FAIRCHILD IN916B
FUSES			
F 1	1	34500260	FUSE, BUSSMANN MDQ 3/4
INDUCTORS			
L 2	1	61000170	CHOKE 5.5 MM
PANEL INDICATOR			
LE 1	1	34300102	L.E.D.COLLAR & RETAINING RING
TRANSISTORS			
Q 1,12	4	30006502	FET, WHITE RED
Q 2,13	4	30007006	FET, GRAY BLUE
Q 3,14	4	30007504	FET, ORANGE WHITE YELLOW
Q 4,15	4	30006704	FET, ORANGE YELLOW
Q 5,16	4	30006705	FET, ORANGE GREEN
Q 6,7,8,9,10,11,17,18,19,20,21,22	24	30005901	FET, RED BROWN
Q 23	2	30006811	FET, YELLOW
RESISTORS			
R 1,18	4	42150203	RES. 150 OHM 1% MK-3 50PPM
R 2,19	4	42665503	RES. 665K 1% MK-3 50 PPM

PRODUCT: EC22

NOTES:

Schematic Symbol	Quantity	ARC Part #	Description
RESISTORS			
R 3,20,61,65,67	10	42200205	RES. 200 OHM+/-1% MK8 50PPM
R 4A,21A,40A,45A,49B	10	42511303	RES. 5.11K 1% MK-3 50PPM
R 4B,5B,21B,22B,71	10	42499303	RES. 4.99K 1% MK-3 50PPM
R 4C,4D,21C,21D,39B	10	42422303	RES. 4.22K 1% MK-3 50PPM
R 5A,22A,48A,57A	8	42100403	RES. 10K+/-1% MK-3 50PPM
R 5C,22C,38A,41A,46B	10	42316303	RES. 3.16K 1% MK-3 50PPM
R 6,10,23,27,56B	10	42681405	RES. 68.1K 1% MK-8 50PPM
R 7A,13A,13B,24A,30A,30B	12	42100505	RES. 100K 1% MK-8 50PPM
R 7B,24B	4	42143505	RES. 143K 1% MK-8 50PPM
R 8,25	4	42274103	RES. 27.4 OHM1% MK-3 50PPM
R 9A,13C,16A,26A,33A	12	42274405	RES. 27.4K 1% MK-8 50PPM
R 9B,26B	4	42150414	RES. 15K 1% MK-3 50PPM
R 11,12A,14,28,29A,31,48A,48B,84	17	42100103	RES. 10 OHM 1% MK-3 50PPM
R 12B,29B	4	42150103	RES. 15 OHM 1% MK-3 50PPM
R 15A,15B,15C,15D,32A,32B,32C,32D	16	42150303	RES. 1.50K 1% MK-3 50PPM
R 16B,33B	4	42215414	RES. 21.5K 1% MK-5 50PPM
R 17,35	4	42475503	RES. 475K 1% MK-3 50PPM
R 36A	2	42499403	RES. 49.9K 1% MK-3 50PPM
R 36B	2	42274403	RES. 27.4K 1% MK-3 50PPM
R 37A	2	42255403	RES. 25.5K 1% MK-3 50PPM
R 37B	2	42121403	RES. 12.1K 1% MK-350PPM
R 38B	2	42200303	RES. 2K MK-3 1% 50PPM
R 39A,46A	4	42127303	RES. 1.27 1% MK-3 50PPM
R 40B	2	42681203	RES. 681 OHM 1% MK-3 50PPM
R 41B,55A,57B	6	42301303	RES. 3.01K 1% MK-3 50PPM
R 42A	2	42432303	RES. 4.32K 1% MK-3 50PPM
R 42B,53B	4	42221303	RES. 2.21K 1% MK-3 50PPM
R 43A	2	42402303	RES. 4.02K 1% MK-3 50PPM
R 43B,44B	4	42287303	RES. 2.87K 1% MK-3 50PPM
R 44	2	42110403	RES. 11K 1% MK-3 50PPM
R 45B	2	42698303	RES. 6.98K 1% MK-3 PPM
R 47A	2	42196403	RES. 19.6K 1% MK-3 50PPM
R 47B,52A	4	42182303	RES. 1.82K 1% MK-3 50PPM
R 50A	2	42100303	RES. 1K 1% MK-3 50PPM
R 50B	2	42121303	RES. 1.21K 1% MK-3 50PPM
R 51A,51B,53A,54A,54B	10	42536303	RES. 5.36K 1% MK-3 50PPM
R 52B	2	42464303	RES. 4.64K 1% MK-3 50PPM
R 55B	2	42237303	RES. 2.37K 1% MK-3 50PPM
R 56A	2	42750303	RES. 7.5K 1% MK-3 50PPM
R 66	1	42100203	RES. 100 OHM 1% MK-3 50PPM
R 68,73	4	42243513	RES. 243K 1% MK-4 50PPM
R 69A,69B	4	42392403	RES. 39.2K 1% MK-3 50PPM
R 70,72	4	42825405	RES. 82.5K 1% MK-8 50PPM
R 74A	2	42150403	RES. 15K 1% MK-3 50PPM
R 74B	2	42205503	RES. 205K 1% MK-3 50PPM
R 75	2	43100002	RES. 1 OHM 2W 5% W.W.
R 76	2	42332203	RES. 332 OHM 1% MK-3 50PPM
R 77	1	42768403	RES. 76.8K 1% MK-3 50PPM

PARTS LIST

As of FEB 5 90

PRODUCT: EC22

NOTES:

Schematic Symbol	Quantity	ARC Part #	Description
RESISTORS			
R 78A	1	42301403	RES. 30.1K 1% MK3 50PPM
R 78B	1	42124503	RES. 124K 1% MK-3 50PPM
R 79	1	42124603	RES. 1.24 MEG 1% MK-350PPM
R 80	1	42100703	RES. 10 MEG 1% MK-3 50PPM
R 81	1	42750203	RES. 750 OHM 1% MK-3 50PPM
R 82	1	42392303	RES. 3.92K 1% MK-3 50PPM
R 83	1	43210200	RES. 210 OHM WIRE WOUND
SWITCHES			
SW 1,2	4	2400200X	6 POS.SWITCH,EC22
SW 3	1	24100710	TOGGLE SW.,PREM.SILVER,PRE AM
SW 4	1	24100410	TOGGLE SW.,PREM.GOLD,PRE AMP
TRANSFORMERS			
T 1	1	60007701	XFR. SP9/14(220/240V) TOROID
INTEGRATED CIRCUITS			
U 1	2	31002200	MC34071P MOTOROLA
U 2,3	2	31000801	TIMER MC1455P1
U 4	1	31002900	MC 7812 CT MOTOROLA
ZENER DIODES			
ZD 1	2	30504200	IN5535A
ZD 2	2	30500300	IN4740A
ZD 3,4	4	31000702	LM329DZ RED
ZD 5	2	30503500	IN5359 B