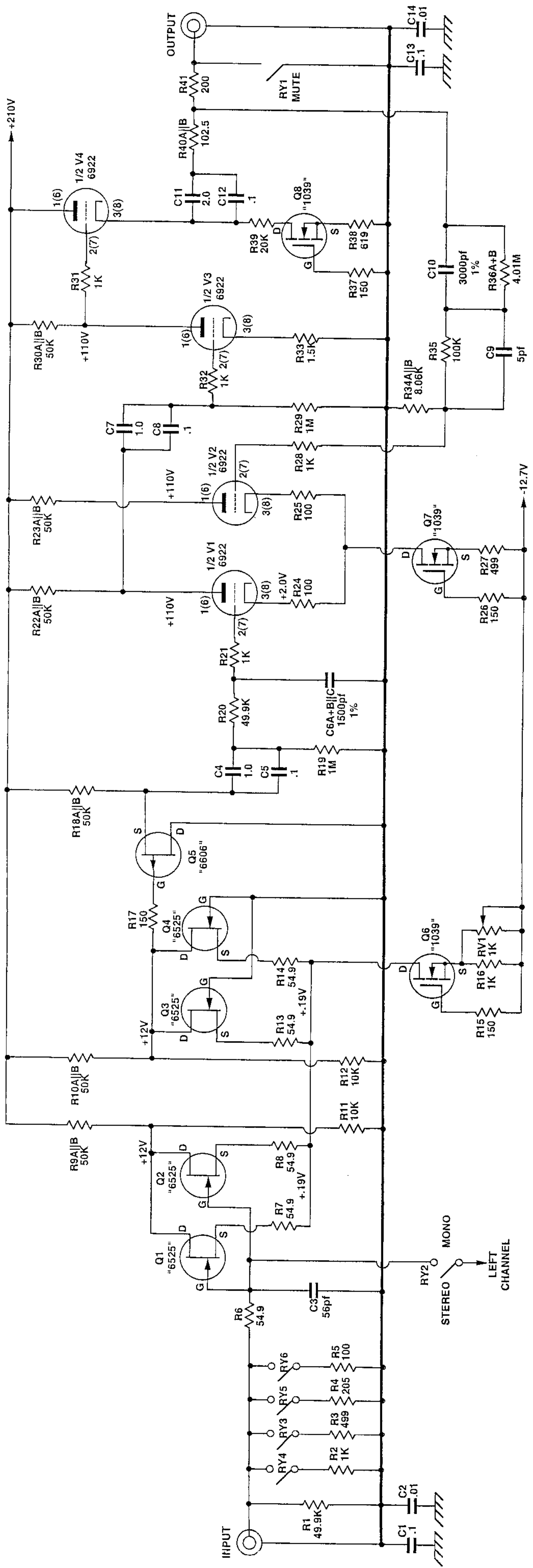




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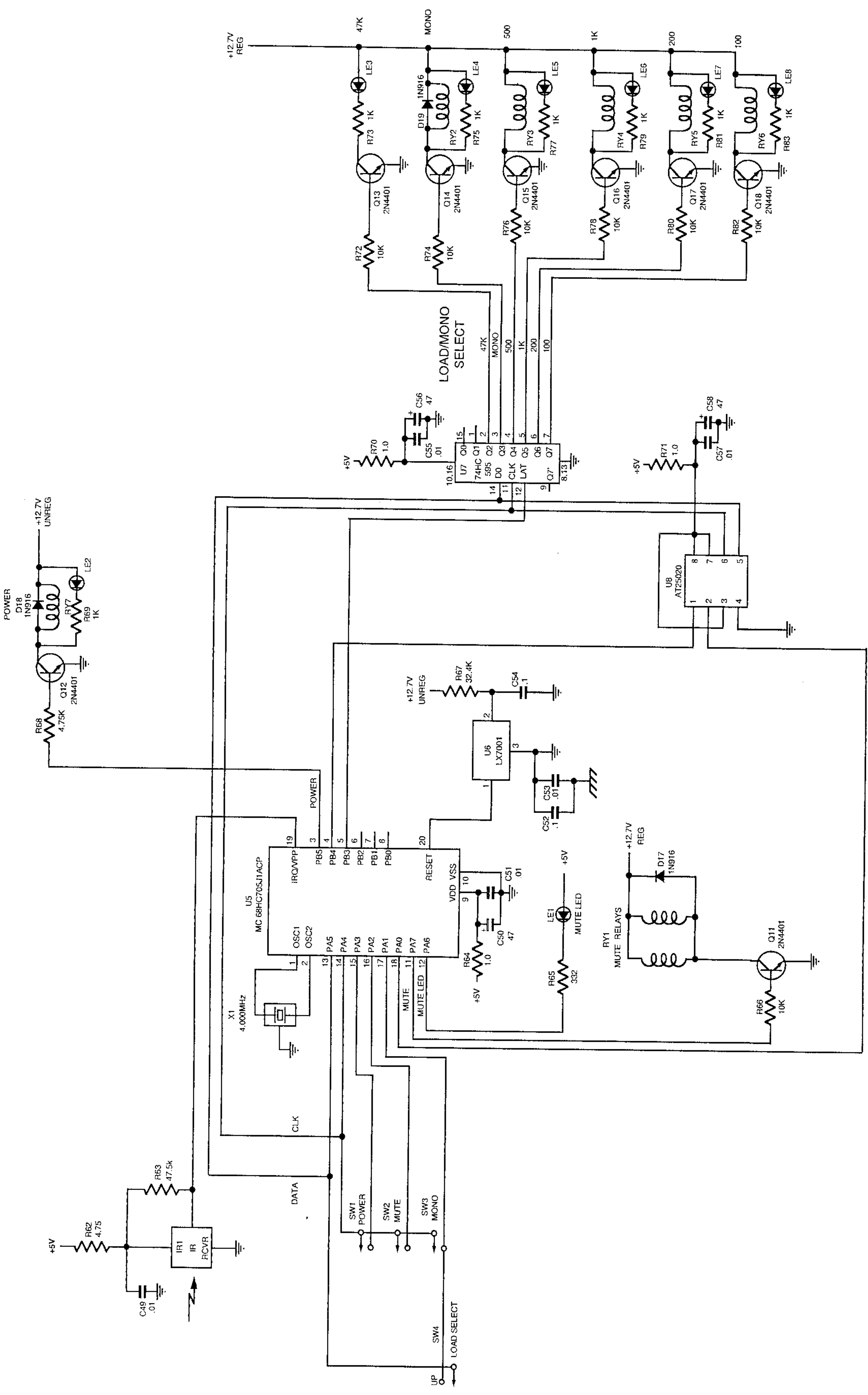
PH5 PREAMPLIFIER
SCHEMATIC & PARTS LIST

Schematic 8-3-04
Parts List 5-26-04



AUDIO RESEARCH CORPORATION
3900 ANNAPOLIS LANE NORTH
PLYMOUTH, MINNESOTA 55447-5447

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PH5
 μP & INTERFACE LOGIC
 REV 1
 PAGE 3 of 3
 7-16-04

PARTS LIST

As of MAY 26 04

PRODUCT: PH5

NOTES:

Schematic Symbol	Quantity	ARC Part #	Description
R RESISTORS			
R1,20	4	42499403	RES., 49.9KΩ MK-3 1% 50PPM
R2,21,28,31,32,16	12	42100303	RES., 1KΩ MK-3 1% 50PPM
R3,6A	2	42301603	(SS)RES.3.01 MEG MK-3 1% 50PPM
R3,27	4	42499203	RES., 499Ω MK-3 1% 50PPM
R4,40A,40B	6	42205203	RES., 205Ω MK-3 1% 50PPM
R5,24,25,42	7	42100203	RES., 100Ω MK-3 1% 50PPM
R6,7,8,13,14,43,44	12	42549103	RES., 54.9Ω MK-3 1% 50PPM
R9A,B,10A,B,18A,B,22A,B,23A,B,30A,B	25	42100505	RES., 100KΩ MK-8 1% 50PPM
R 53			
R11,12,52	5	42100403	RES., 10KΩ MK-3 1% 50PPM
R15,17,26,37,46,47	10	42150202	RES., 150Ω MK-2 1% 50PPM
R19,29	4	42100603	RES., 1 MEG MK-3 1% 50PPM
R33	2	42150303	RES., 1.50KΩ MK-3 1% 50PPM
R34A	2	42150403	RES., 15KΩ MK-3 1% 50PPM
R34B	2	42178403	RES., 17.8KΩ MK-3 1% 50PPM
R35	2	42100503	RES., 100KΩ MK-3 1% 50PPM
R36B,49	3	42182503	RES., 182KΩ MK-3 1% 50PPM
R38	2	42619203	RES., 619Ω MK-3 1% 50PPM
R39	2	42200414	RES., 20KΩ MK-5 1% 50PPM
R41,45A,45B	4	42200205	RES., 200Ω MK8 1% 50PPM
R48,57,60	3	42237303	RES., 2.37KΩ MK-3 1% 50PPM
R50A,B,C,D,E	5	42750405	RES., 75KΩ MK-8 1% 50PPM
R51	1	42332203	RES., 332Ω MK-3 1% 50PPM
R54A,B	2	42274403	RES., 27.4KΩ MK-3 1% 50PPM
R55A	1	42243513	RES., 243KΩ MK-4 1% 50PPM
R55B	1	42182613	RES., 1.82 MEG MK-4 1% 50PPM
R55C	1	42221603	RES., 2.21 MEG MK-3 1% 50PPM
R56	1	43100002	RES., 1Ω 2W 5% W.W.
R58,61	2	42261203	RES., 261Ω MK3 1% 50 PPM
R59	1	42100103	RES., 10Ω MK-3 1% 50PPM
R62	1	42475002	RES., 4.75Ω MK-2 1% 50 PPM
R63	1	42475402	RES., 47.5KΩ MK-2 1% 50 PPM
R64,70,71	4	42100002	RES., 1Ω MK-2 1% 50 PPM
R65	1	42332202	RES., 332Ω MK-2 1% 50PPM
R66,72,74,76,78,80,82	7	42100402	RES., 10KΩ MK-2 1% 50 PPM
R67	1	42267403	RES., 26.7KΩ MK3 1% 50PPM
R68	1	42475302	RES., 4.75KΩ MK-2 1% 50 PPM
R69,73,75,77,79,81,83	7	42100302	RES., 1KΩ MK-2 1% 50 PPM
RY RELAYS			
RY1,2	2	64101600	RELAY, 12VDC
RY3-6	8	64102100	RELAY,12V REED
RY7	1	64101320	RELAY, STANDBY REFPHONO
SW SWITCHES			
SW1-4	4	24200910	SWITCH, CD3 BLACK KS11

PARTS LIST

As of MAY 26 04

PRODUCT: PH5

NOTES:

Schematic Symbol	Quantity	ARC Part #	Description
C CAPACITORS			
C1,13,52,54	5	52100500	CAP., 0.1 μ f 100V \pm 20%
C2,14,49,51,53,55,57	8	52100400	CAP., .01 μ f 200V \pm 10%
C3	2	53560103	CAP., 56pf \pm 2.5% 630V PPN
C4,7,37	5	53100606	CAP., 1.0 μ f \pm 10% 250V
C5,8,12,25	7	53100507	CAP., 0.1 μ F \pm 10% 630V
C6A,B,C	6	53100304	CAP., 1000pf \pm 2.5% 630V PPN
C9	2	53500001	CAP., 5pf \pm 1pf 630V DPN
C10	2	53300303	CAP., 3000pf \pm 2.5% 630V
C11,29	3	53200603	CAP., 2 μ F \pm 10% 250V
C15,16,17	3	52500300	CAP., .005 μ F 300VAC/2000V \pm 20%
C18-21	4	53100407	CAP., .01 μ f \pm 20% 250V
C22,23	2	50470807	CAP., 470 μ F 450V "LYTIC"
C24	1	53200602	CAP., 2 μ F \pm 10% 450V
C26	1	53100412	CAP., .01 μ F \pm 10% 600V RTX
C27,30,32,34,40,43,46,48	8	53220507	CAP., .22 μ f \pm 10% 160V
C28,31,33,35,36,38	6	53100410	CAP., .01 μ f \pm 10% 400V
C39,42,45	3	50470901	CAP., 4700 μ F 35V
C41,44,50,56,58	5	50470701	CAP., 47 μ F 35V \pm 20%
C47	1	50100601	CAP., 1 μ F 50V "LYTIC"
D DIODES			
D1-4	4	30502200	IN4006
D5-12	8	30501500	IN5400
D13-16	4	30500400	IN4005
D17,18,19	3	30500910	1N916B
F FUSES			
F1	1	34501301	FUSE, 2 AMP MDX/MDQ BUSS
IR IR RECEIVERS			
IR1	1	34100400	RECEIVER, IR VISHAY TSOP1736
L INDUCTORS			
L1,2	2	61000160	CHOKE, 2.7 μ H \pm 10%
LE PANEL INDICATOR			
LE1-8	8	34300300	L.E.D., GREEN SPOT LTL-1234A
Q TRANSISTORS			
Q1-4	8	30006522	FET, WHITE RED RED
Q5	2	30006406	(SS)FET, BLUE BLUE/GRADE
Q6-9	7	30011039	FET, GREEN-ORANGE-WHITE
Q10	1	30006765	FET, ORANGE-YELLOW-GREEN
Q11-18	8	30002800	TRANSISTOR, 2N4401

PARTS LIST

As of MAY 26 04

PRODUCT: PH5

NOTES:

Schematic Symbol	Quantity	ARC Part #	Description
T			TRANSFORMERS
T1	1	60020714	XFR.POWER PH5
T2	1	60013614	XFR., LS15/16/25 10V 115/130V
U			INTEGRATED CIRCUITS
U1	1	31002230	OPA134
U2	1	31004000	REGULATOR, VOLTAGE ADJ POS.
U3	1	31004700	REGULATOR, VOLTAGE ADJ. NEG.
U4	1	31002910	REGULATOR, IC 5V
U5	1	31008300	(Q)MC68HC705J1A, MOTOROLA
U6	1	31008400	LX7001CLP, LINFINITY
U7	1	31006800	REGISTER, LATCH
U8	1	31009700	EEPROM AT25020
V			VACUUM TUBES
V1-4	4	32001162	(B)TUBE, 6922 SILVER TESTED
X			CRYSTALS
X1	1	27000200	RESONATOR, 4Mhz #EFO-GC4004A4
ZD			ZENER DIODES
ZD1	1	30504400	IN5240B
ZD2	1	30504210	DIODE, ZENER IN5535A (KNOX)
ZD3	1	30503500	IN5359A OR B
ZD4,5	2	31000705	FET, GREEN