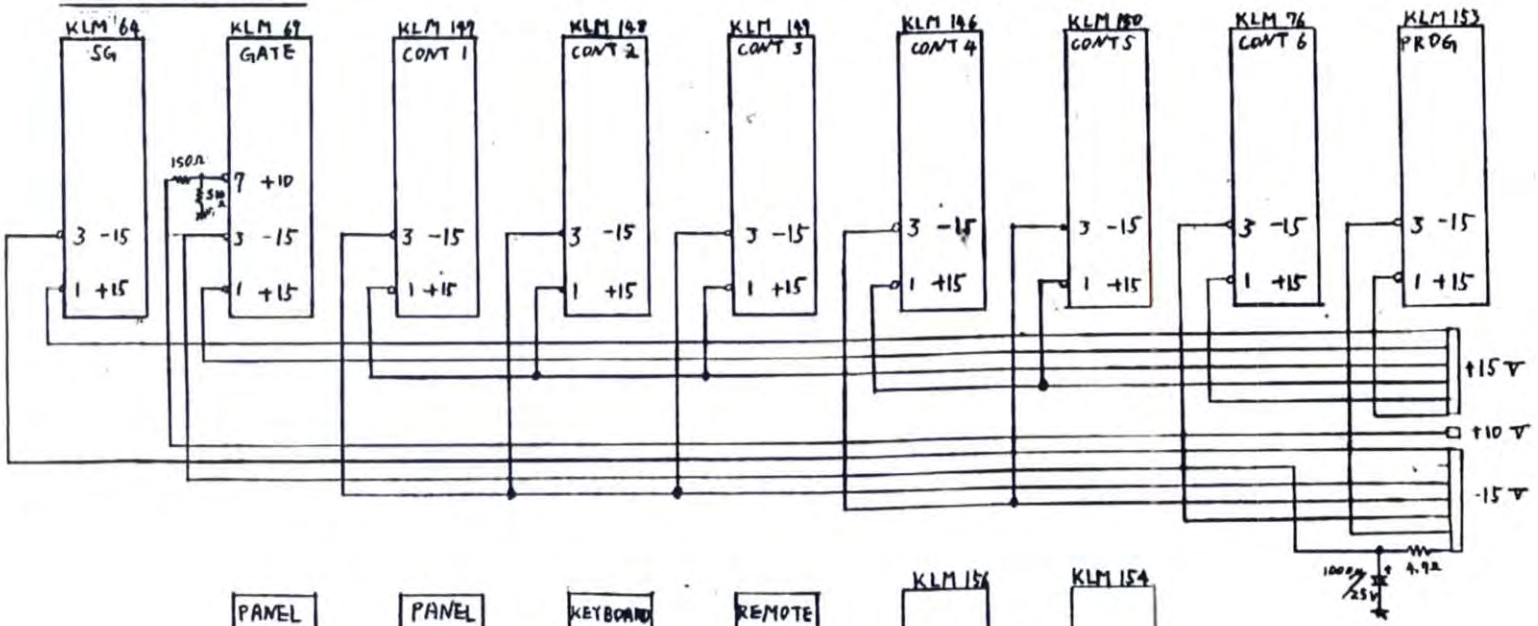
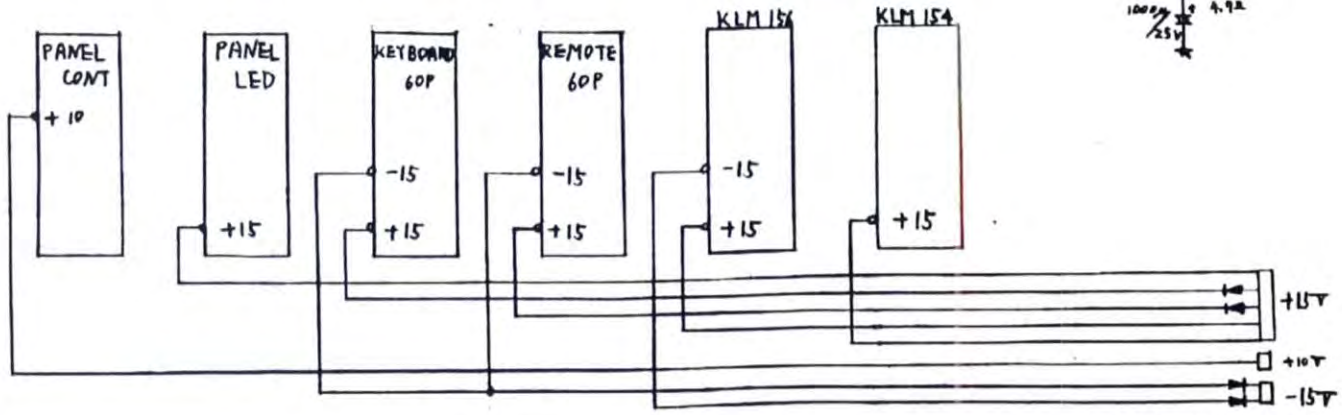
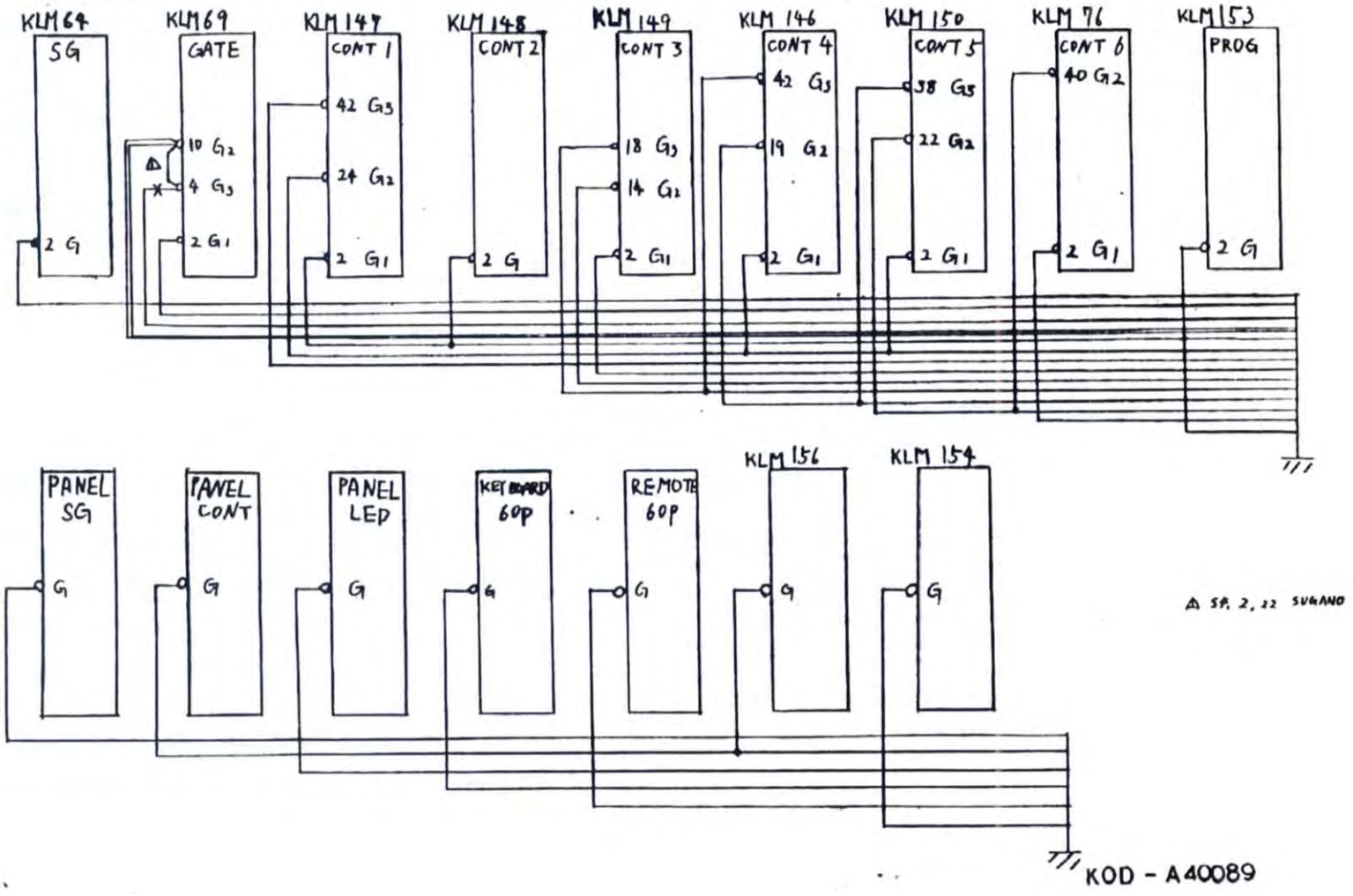
PS-3200 電源系統図





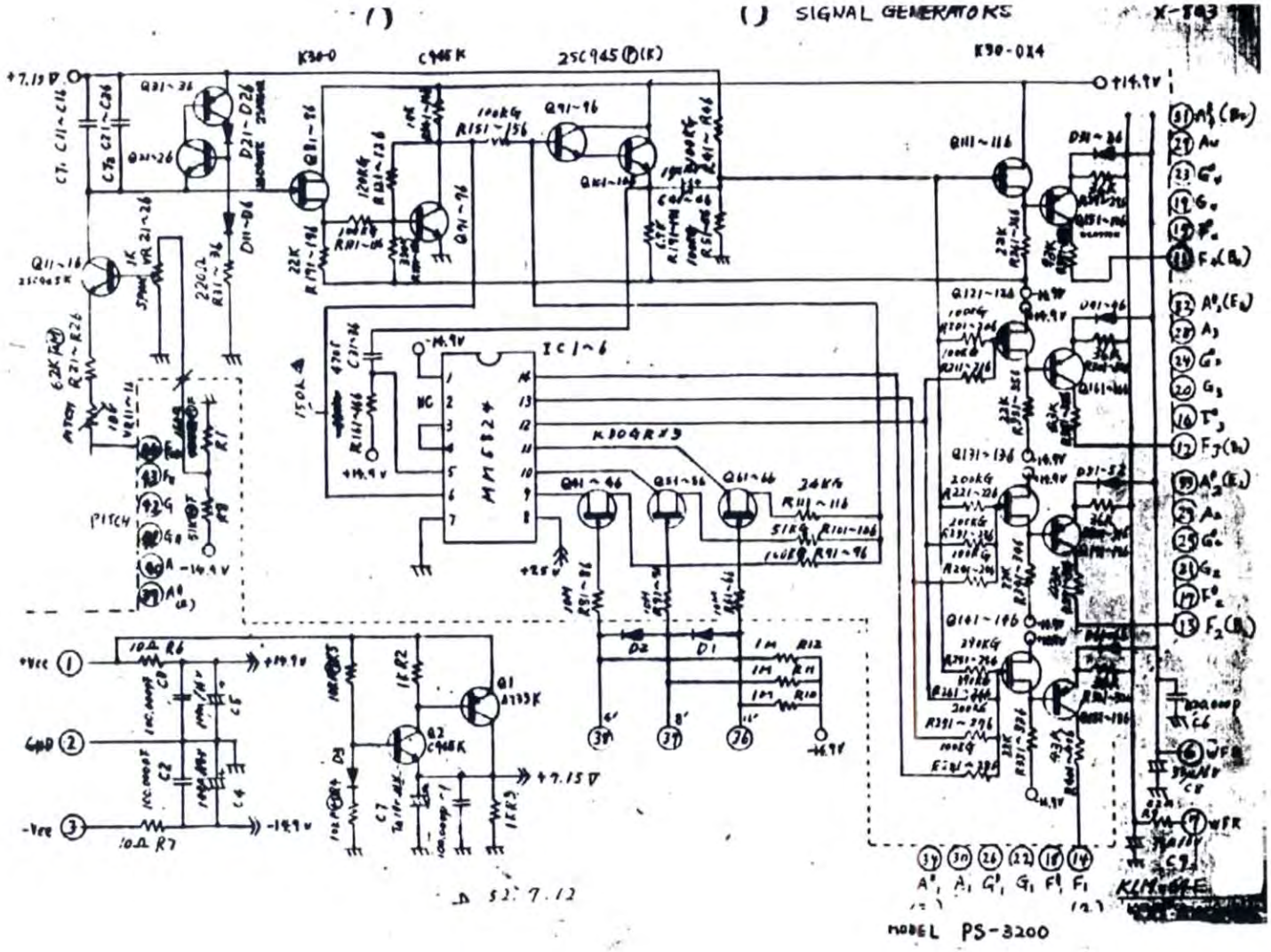
KOD-A40090

PS-3200 GND 系統図



△ SP. 2, 22 SUGANO

KOD - A40089

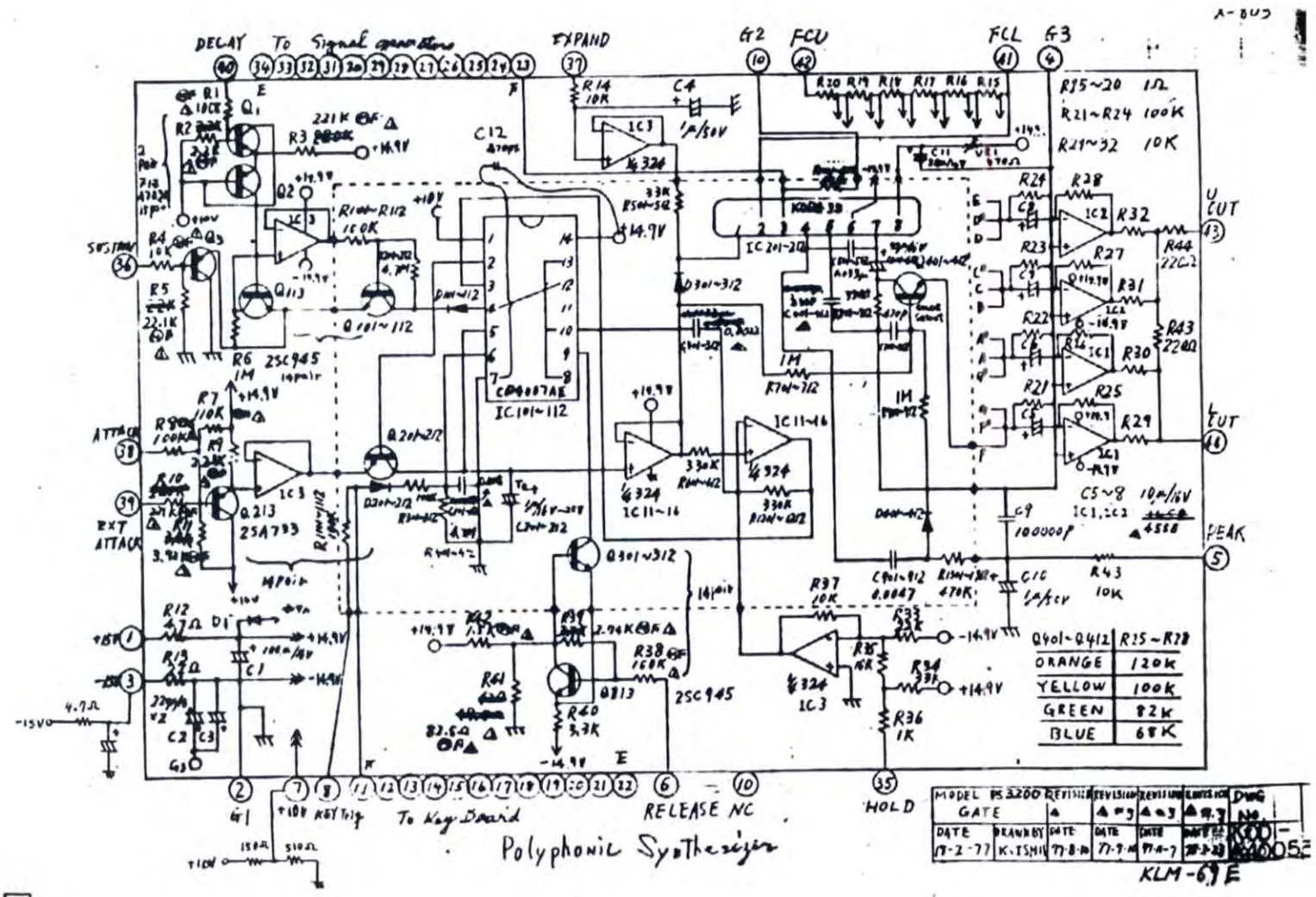

K30-0
C945K
2SC945(P)(Q)
K30-0X4
+7.15V
+14.9V
-14.9V
-7.15V
IC 1~6
MM 5262
PITCH
Vcc
GND
-Vcc
MODEL PS-3200

SIGNAL GENERATOR CT CHART

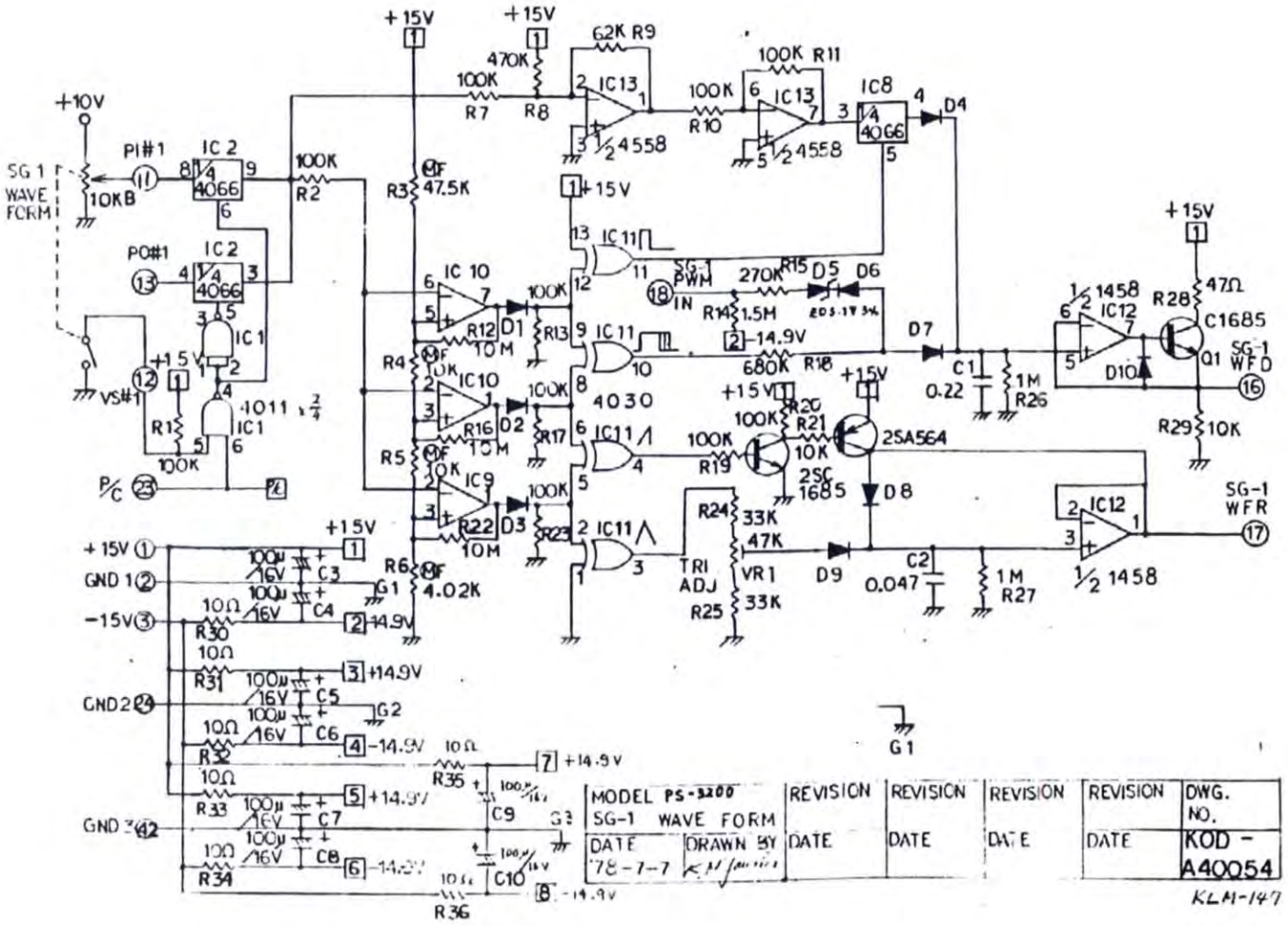
1	F	C11	1500 PF	C21	47 PF
	F#	C12	1200	C22	270
	G	C13	1200	C23	180
	G#	C14	1200	C24	100
	A	C15	1000	C25	220
	A#	C16	1000	C26	150
2	B	C11	1000	C21	100
	C	C12	1000	C22	33
	C#	C13	820	C23	150
	D	C14	820	C24	100
	D#	C15	820	C25	47
	E	C16	820	C26	———

MODEL PS3200 SIGNAL GENERATOR CT		REVISION	REVISION	REVISION	REVISION	DWG NO
DATE 20-3-77	DRAWN BY M.Yokomichi	DATE	DATE	DATE	DATE	KOD-A40052

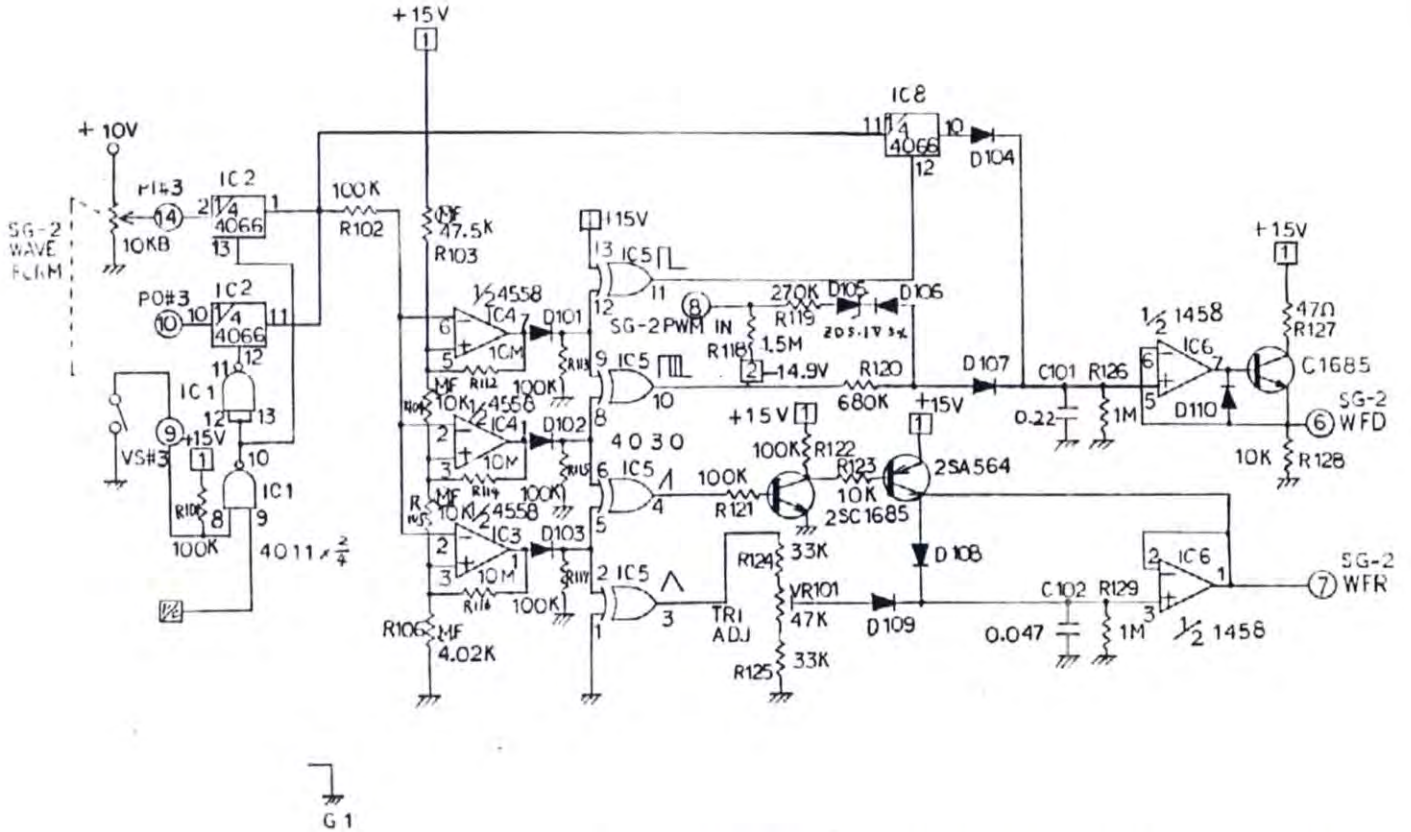
KLM-64


DELAY
To Signal generator
EXPAND
G2
FCU
FCL
G3
U CUT
L CUT
PEAK
ATTACK
EXT ATTACK
SUSTAIN
G1
To Key Board
RELEASE NC
HOLD
Polyphonic Synthesizer
R15~20 1Ω
R21~R24 100K
R21~32 10K
C5~8 10μ/16V
C9 100000P
C10 1μ/50V
R43 10K
Q401~Q412 R35~R38
ORANGE 120K
YELLOW 100K
GREEN 82K
BLUE 68K
MODEL PS-3200
GATE
DRAWN BY K. ISHII
KLM-69E

3

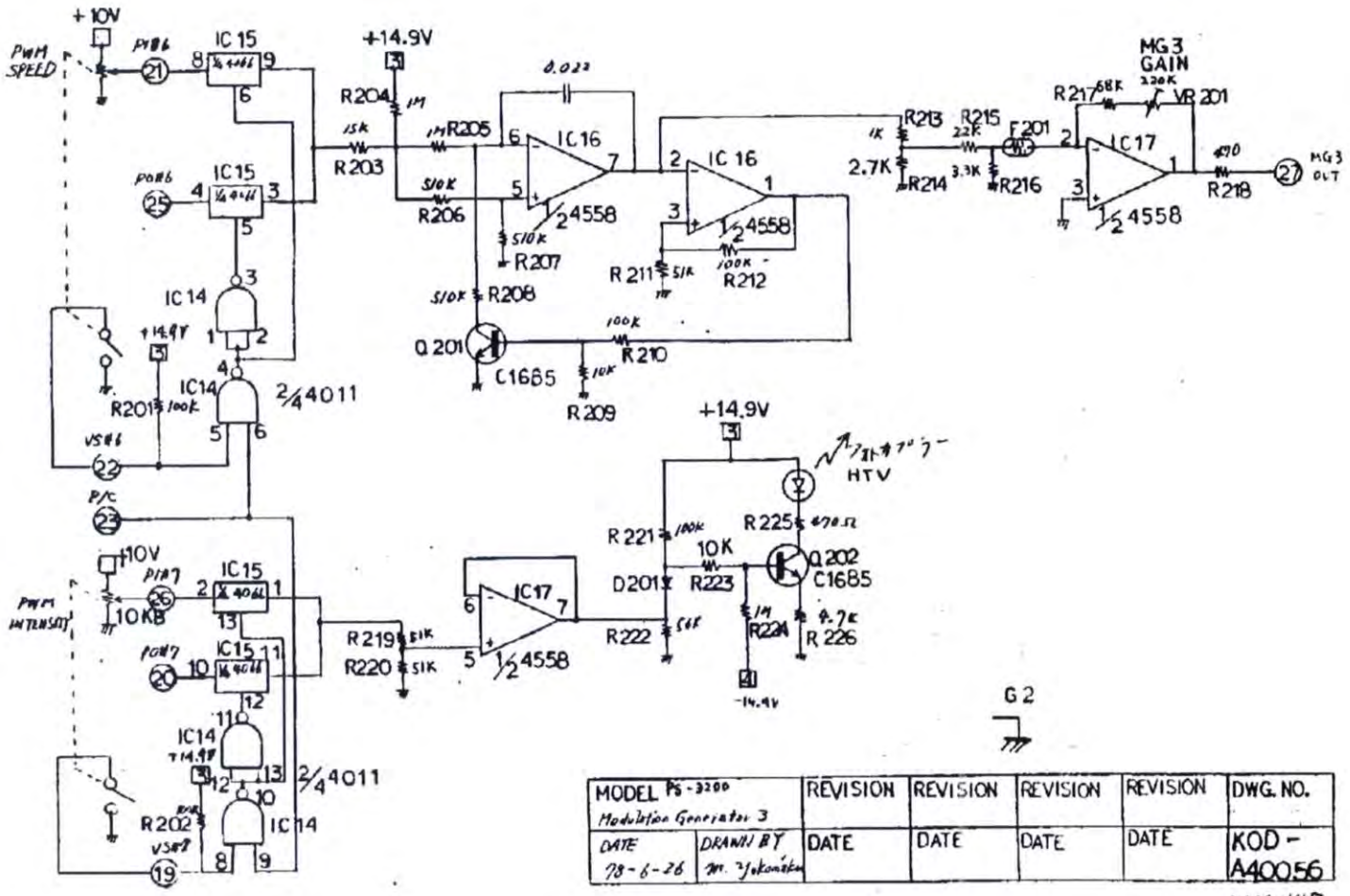

+15V
+10V
SG 1 WAVE FORM
10KB
PI#1
PO#1
IC 2
4066
100K R2
47.5K R3
62K R9
470K
100K R7
R8
IC13
4558
100K R10
100K R11
IC8
4066
D4
IC 10
R12 10M
D1
R13 100K
R4 10K
R16 10M
D2
R17 100K
R5 10K
R22 10M
D3
R23 100K
R6 4.02K
IC11
4030
270K R15
D5
D6
1.5M R14
-14.9V
680K R18
D7
C1 0.22
1M R26
IC12
1458
R28 47Ω
C1685
Q1
SG-1 WFD
D10
R29 10K
SG-1 WFR
IC1
4011
VS#1
R1 100K
P/C
100K R20
R21 10K
2SA564
2SC 1685
D8
R24 33K
47K
TRI ADJ
VR1
33K R25
D9
C2 0.047
1M R27
GND 1
-15V
GND 2
GND 3
C3
C4
C5
C6
C7
C8
C9
C10
R30 10Ω
R31 10Ω
R32 10Ω
R33 10Ω
R34 10Ω
R35 10Ω
R36 10Ω
+14.9V
-14.9V
G1
G2
G3
MODEL PS-3200
SG-1 WAVE FORM
DATE 78-7-7
DRAWN BY
REVISION
DATE
DWG. NO.
KOD - A40054
KLA-147

4



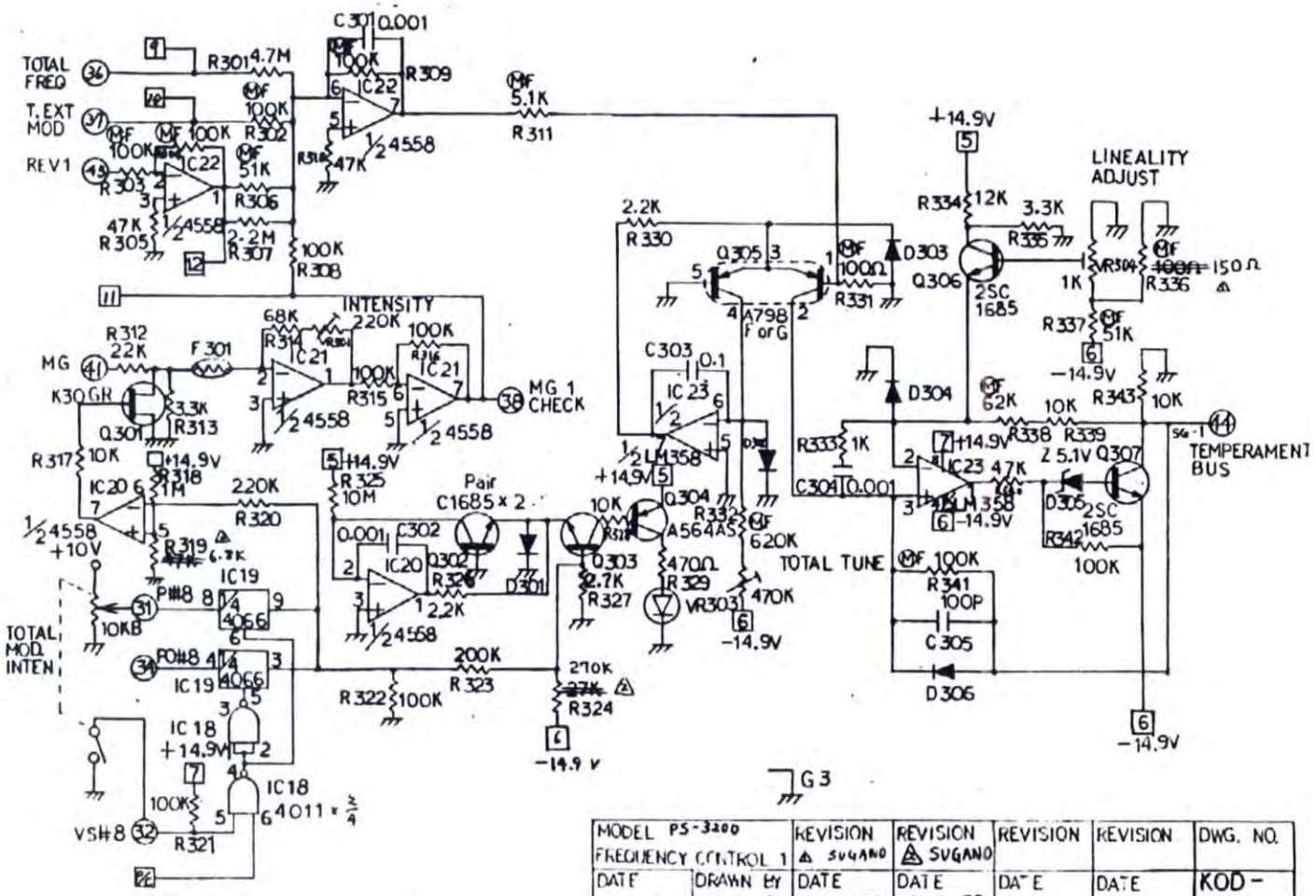
MODEL PS-3200 SG-2 WAVE FORM		REVISION	REVISION	REVISION	REVISION	DWG. NO.
DATE 7/6-1-7	DRAWN	DATE	DATE	DATE	DATE	KOD-A40055

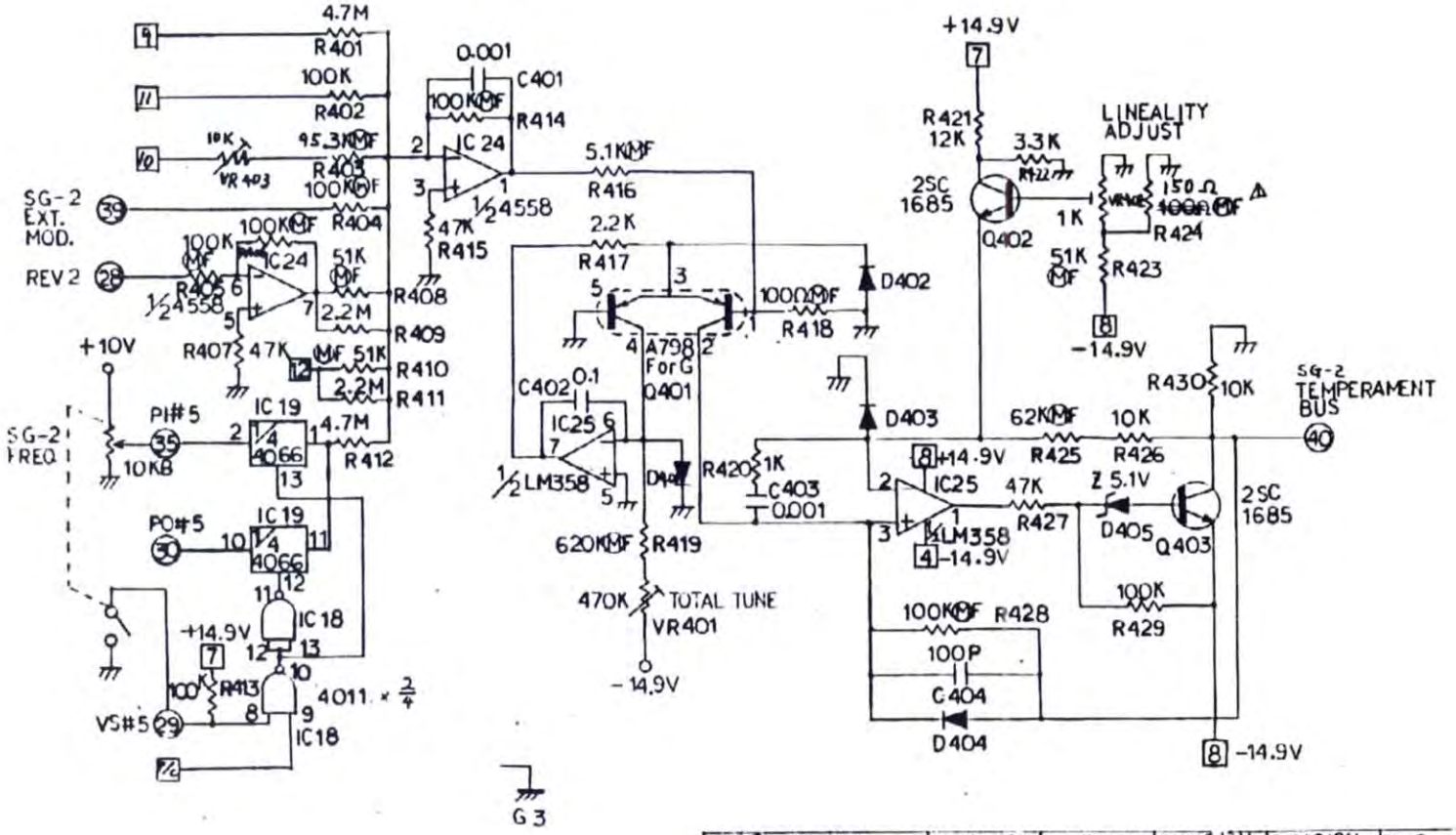
ECM-197



MODEL PS-3200 Modulation Generator 3		REVISION	REVISION	REVISION	REVISION	DWG. NO.
DATE 78-6-26	DRAWN BY M. Yokomizo	DATE	DATE	DATE	DATE	KOD-A40056

KLM-147

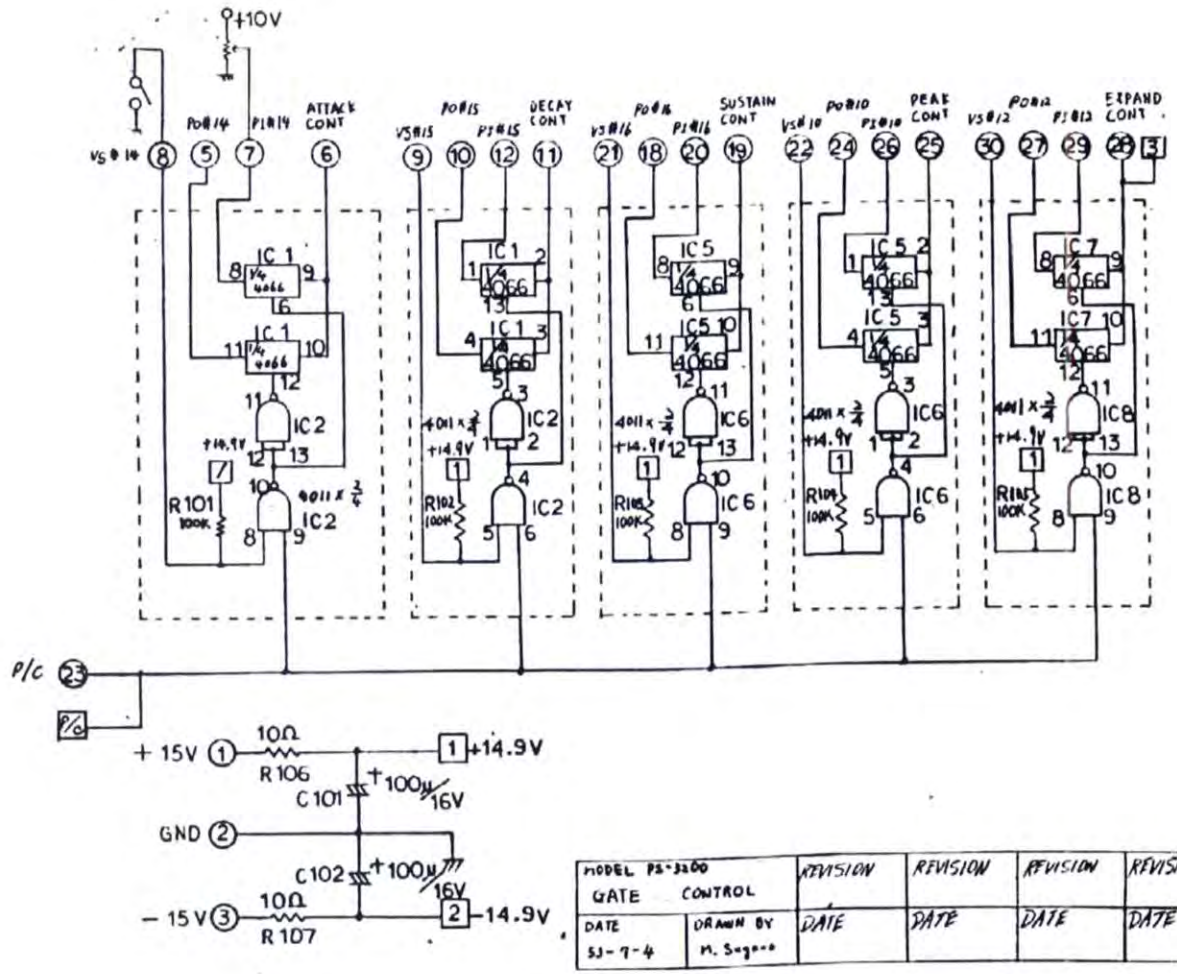

TOTAL FREQ
T. EXT MOD
REV 1
TOTAL MOD. INTEN
MG
INTENSITY
MG 1 CHECK
LINEALITY ADJUST
TEMPERAMENT BUS
TOTAL TUNE
Pair C1685 x 2
A798 F or G
A564AS
LM358
2SC 1685
+14.9V
-14.9V
-14.9 v
+10V
VSH 8
IC18 4011 × ¼
IC19 4066
IC20
IC21
IC22
IC23
R301 4.7M
R302 100K
R303 100K
R305 47K
R306 51K
R307 2.2M
R308 100K
R309 100K
R311 5.1K
R312 22K
R313 3.3K
R314 68K
R315 100K
R316 220K
R317 10K
R318 1M
R319 6.8K
R320 220K
R321 100K
R322 100K
R323 200K
R324 270K
R325 10M
R326 2.2K
R327 2.7K
R329 470Ω
R330 2.2K
R331 100Ω
R333 1K
R334 12K
R335 3.3K
R336 150Ω
R337 51K
R338 10K
R339 47K
R341 100P
R342 100K
R343 10K
C301 0.001
C302 0.001
C303 0.1
C304 0.001
C305
VR303 470K
VR304 1K
D301
D303
D304
D305
D306
Z 5.1V
Q301 K30GR
Q303
Q304
Q305
Q306
Q307
F301
P#8
PO#8
G3
MODEL PS-3200
FREQUENCY CONTROL 1
REVISION ⚠ SUGANO
REVISION ⚠ SUGANO
DATE 10-7-78
DRAWN BY
DATE 19-1-79
DATE 8-2-79
DWG. NO. KOD-A40057
KLM-147



MODEL PS-3200		REVISION	REVISION	REVISION	REVISION	DWG NO.
FREQUENCY CONTROL 2		⚠ SUGANO				
DATE	DRAWN BY	DATE	DATE	DATE	DATE	KOD - A40058
10-1-76	KM Yamaki	19-1-79				

KLM-147

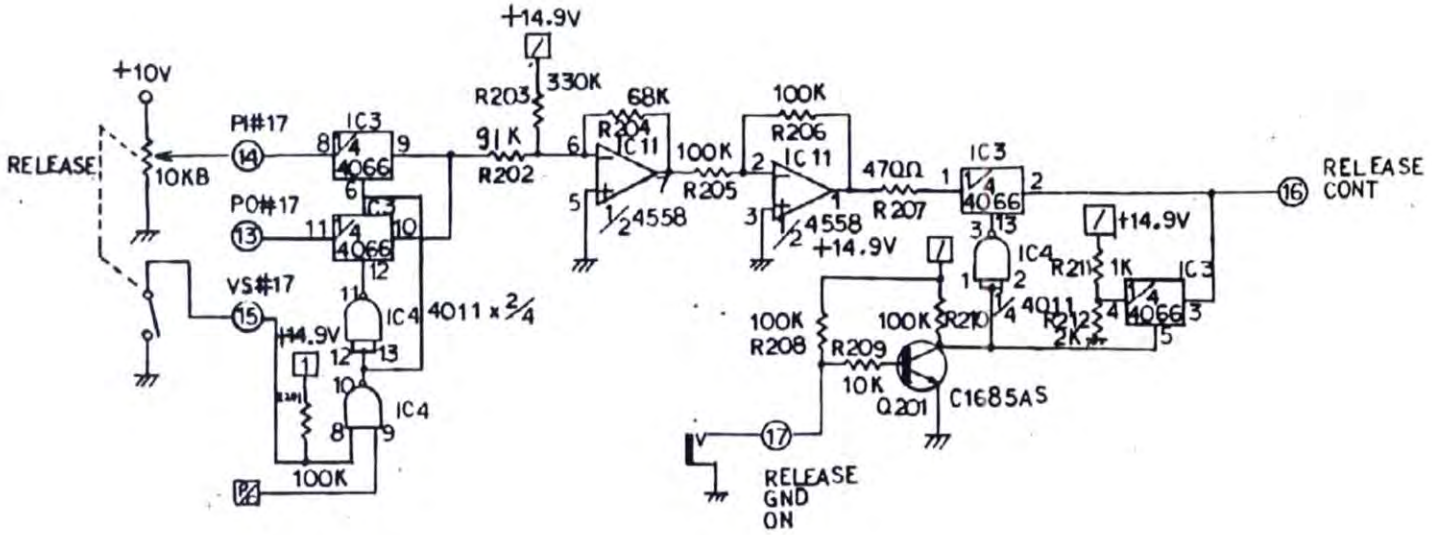
8



MODEL PS-3200 GATE CONTROL		REVISION	REVISION	REVISION	REVISION	DWG NO.
DATE 53-7-4	DRAWN BY M. Sugano	DATE	DATE	DATE	DATE	KOD-A40059

KLM-148

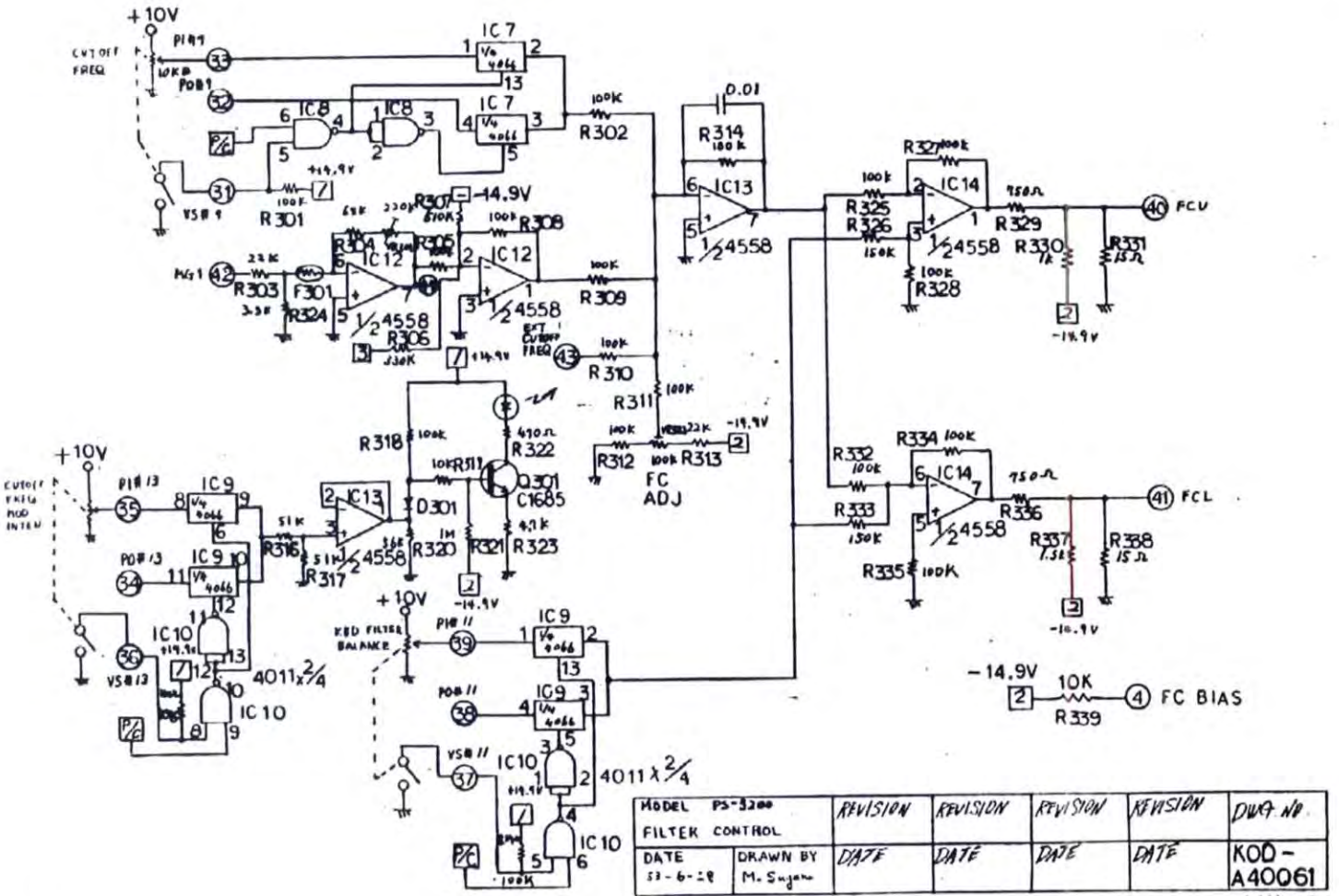
9



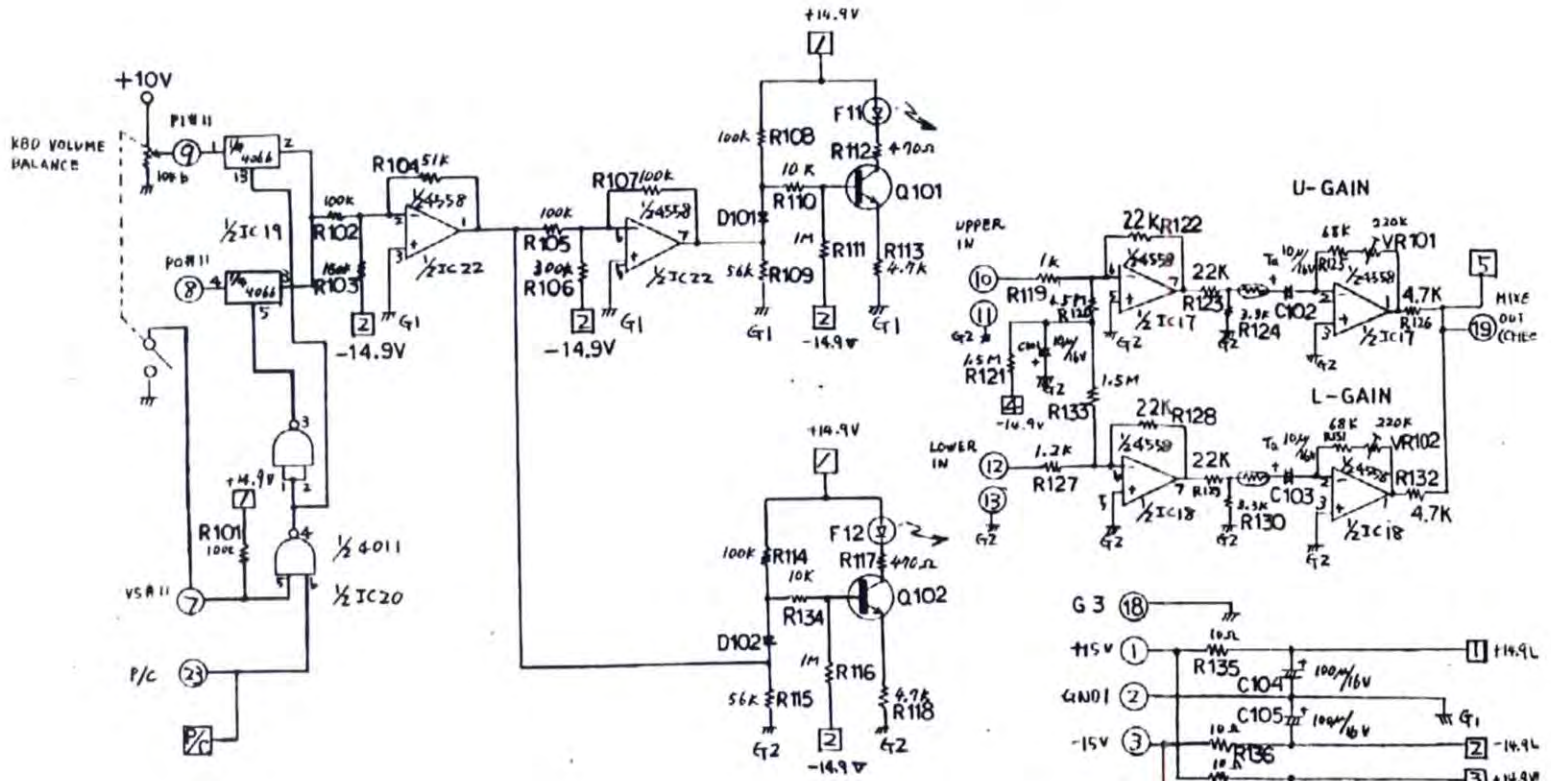
MODEL PS-3200 RELEASE CONTROL,		REVISION	REVISION	REVISION	REVISION	DWG NO.
DATE 24-7-78	DRAWN BY K Hijazaki	DATE	DATE	DATE	DATE	KOD-A40060

KLM-148

10

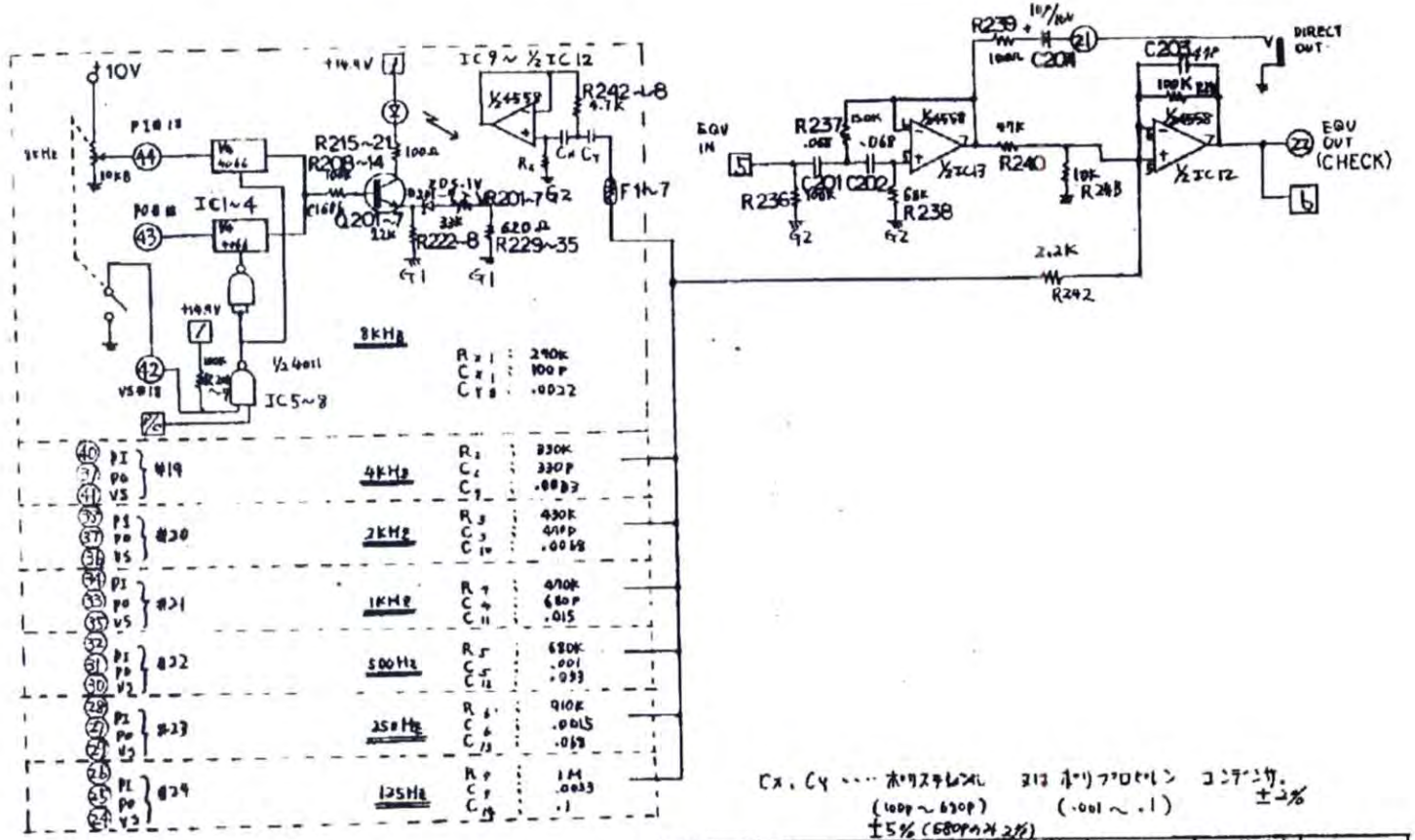

+10V
CUT OFF FREQ
PIN 9
POB 1
VSB 9
IC 7
IC 8
R301
R302
R303
R304
R305
R306
R307
R308
R309
R310
R311
R312
R313
R314
R318
R320
R321
R322
R323
R324
R325
R326
R327
R328
R329
R330
R331
R332
R333
R334
R335
R336
R337
R338
F301
Q301
C1685
IC 12
IC 13
IC 14
1/2 4558
-14.9V
EXT CUTOFF FREQ
FC ADJ
FCU
FCL
+10V
PIN 13
POB 13
VSB 13
IC 9
IC 10
4011 x 2/4
RED FILTER BALANCE
PIN 11
POB 11
VSB 11
-14.9V
10K
R339
FC BIAS
MODEL PS-3200
FILTER CONTROL
DRAWN BY M. Sugano
DATE 53-6-28
REVISION
DATE
DWG NO
K00-A40061
KLM-148

(11)



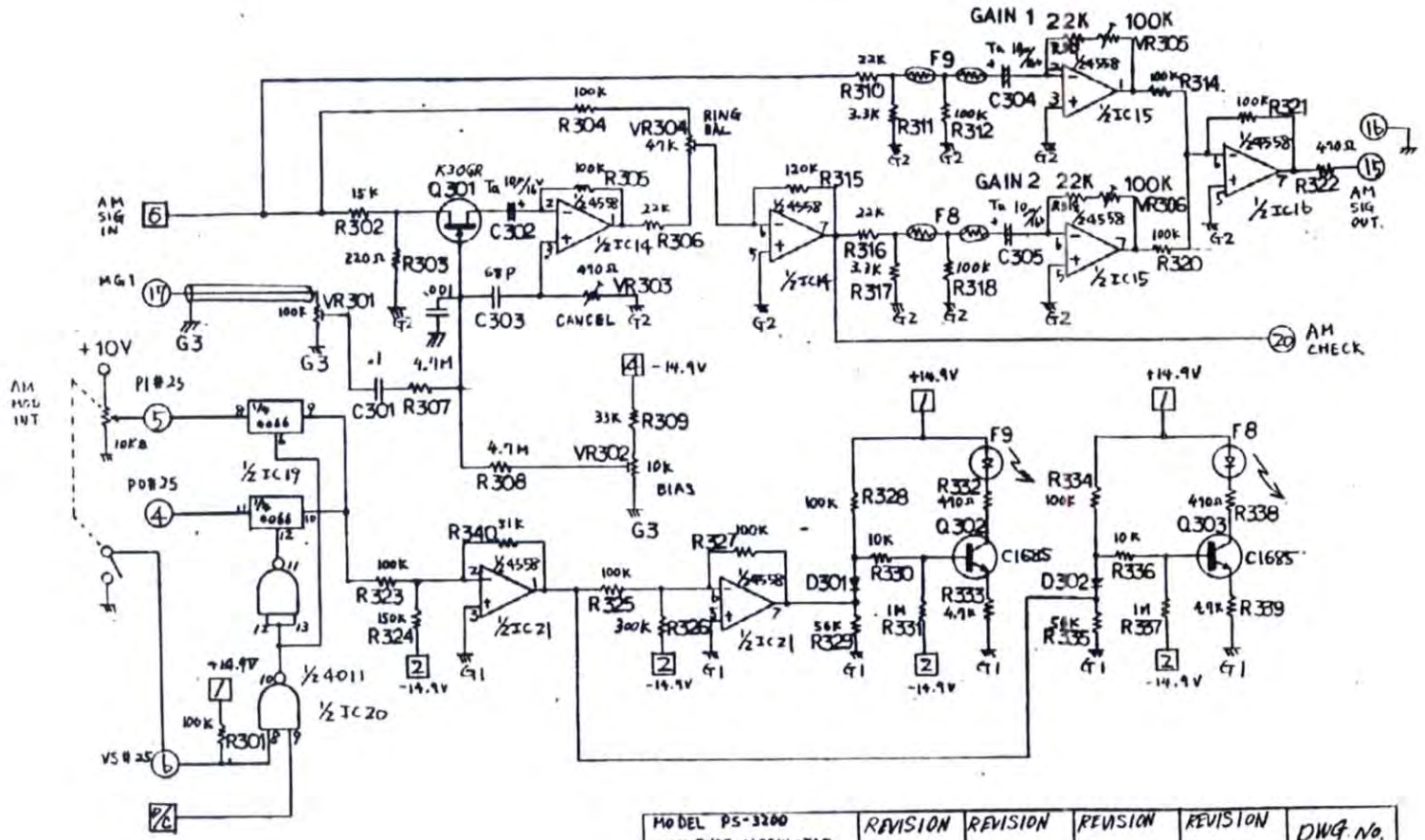
MODEL PS-3300 BALANCE MIXER ...		REVISION	REVISION	REVISION	REVISION	DWG NO.
DATE 77-6-24	WRITTEN BY M. Sugano	DATE	DATE	DATE	DATE	KOD-A40062

KLM-149



MODEL PS-3200 EQUALIZER		REVISION	REVISION	REVISION	REVISION	DWG. NO.
DATE 53-8-1	DRAWN BY M. SUGIANO	DATE	DATE	DATE	DATE	KOD-A40063

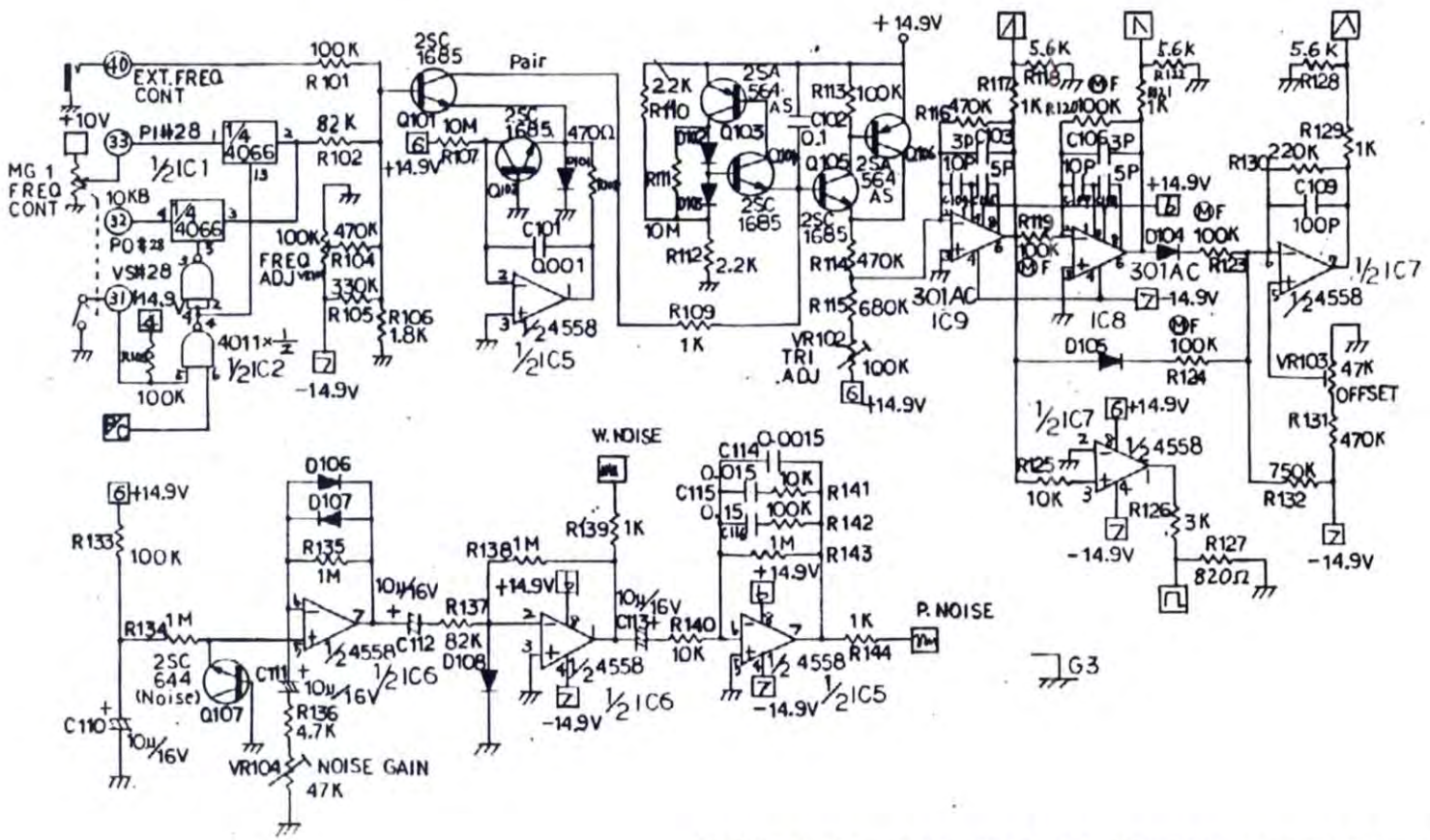
KLM-149



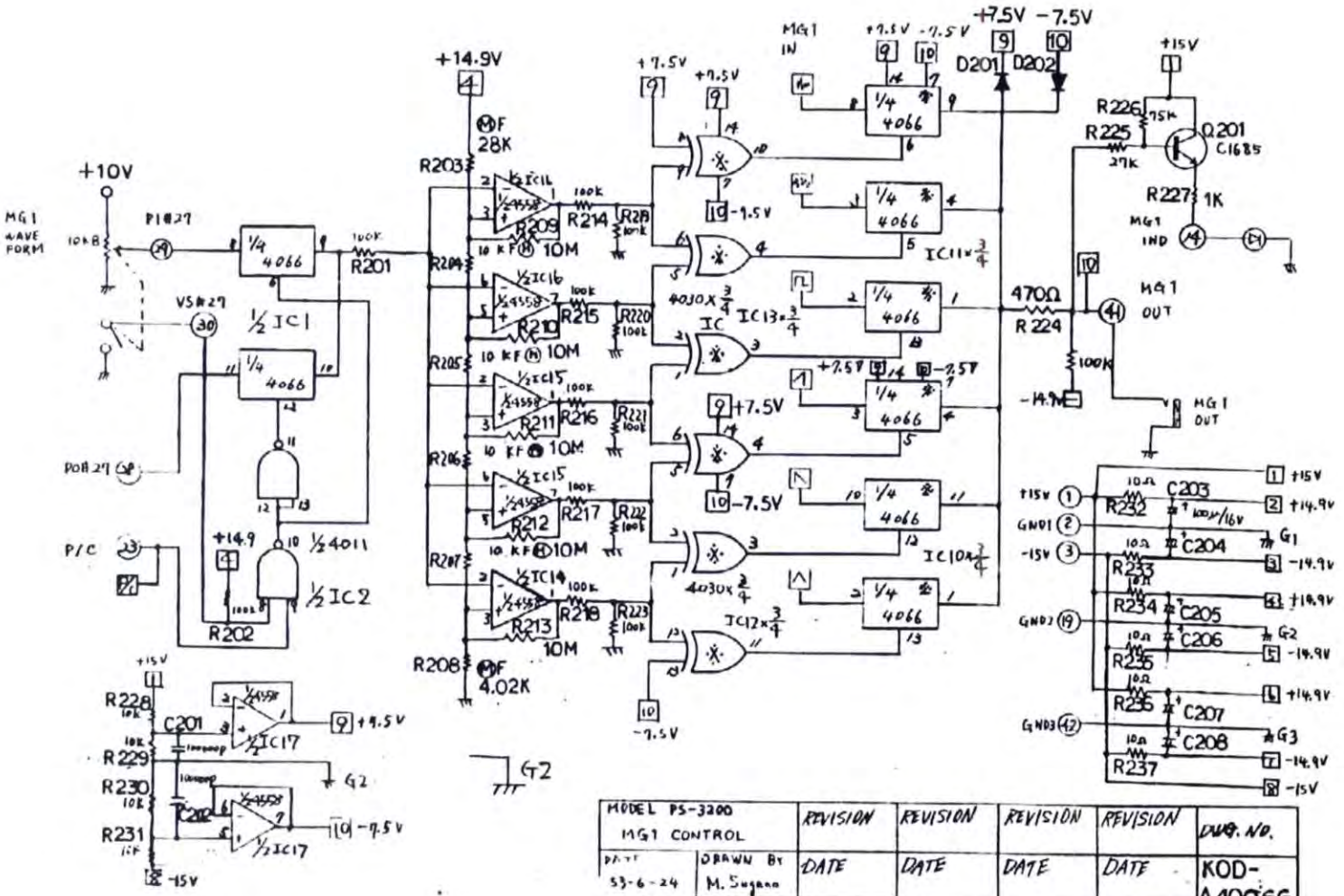
MODEL PS-3200 AMPLITUDE MODULATOR		REVISION	REVISION	REVISION	REVISION	DWG. No.
DATE	DRAWN BY	DATE	DATE	DATE	DATE	KOD-A40064
83. 6. 30	M. Sugano					

KLM-149

114

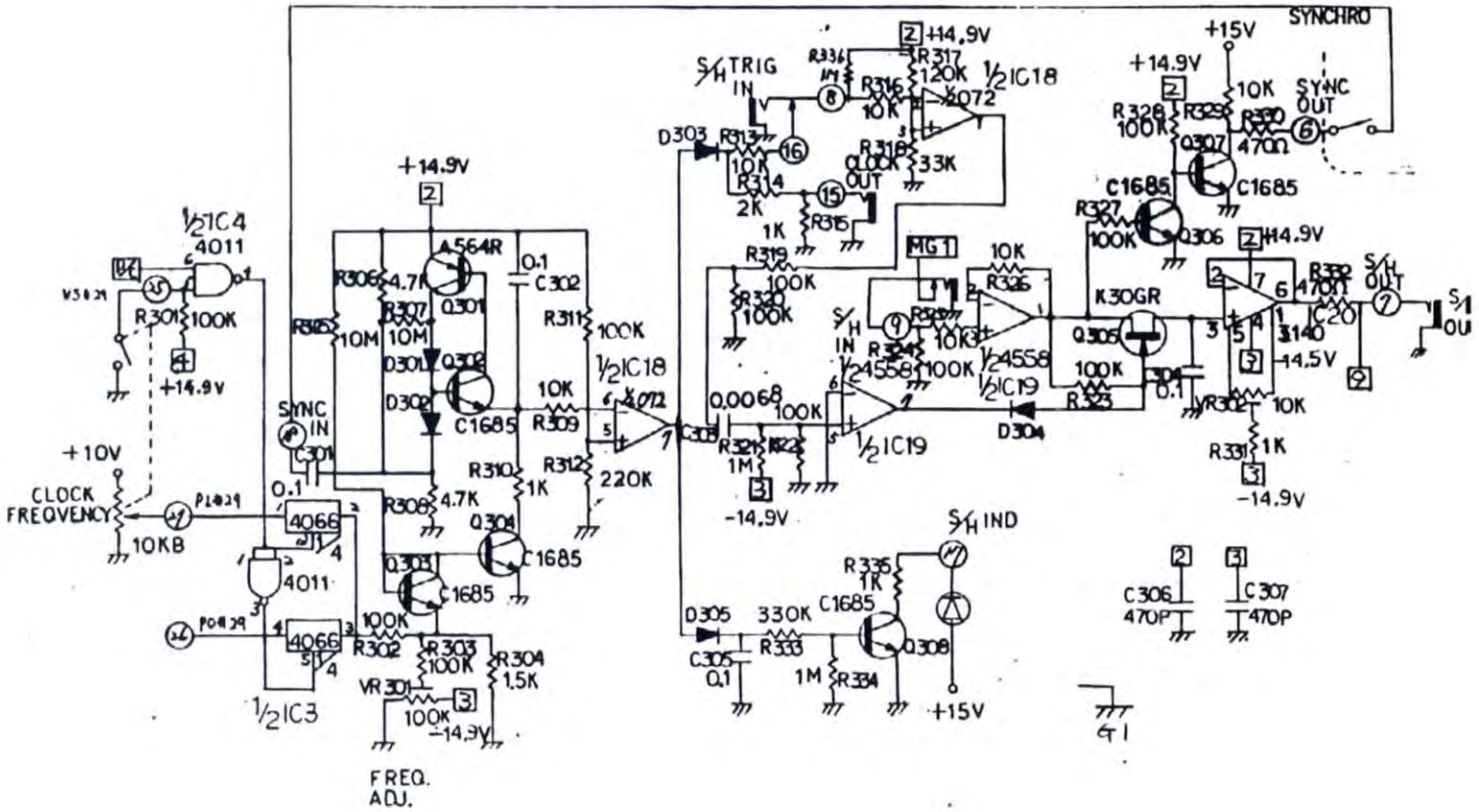


MODEL PS-3200 MG-1, NOISE GENERATOR		REVISION	REVISION	REVISION	REVISION	DWG NO
DATE 10-7-78	DRAWN BY K. Miyauchi	DATE	DATE	DATE	DATE	KOD-A40065

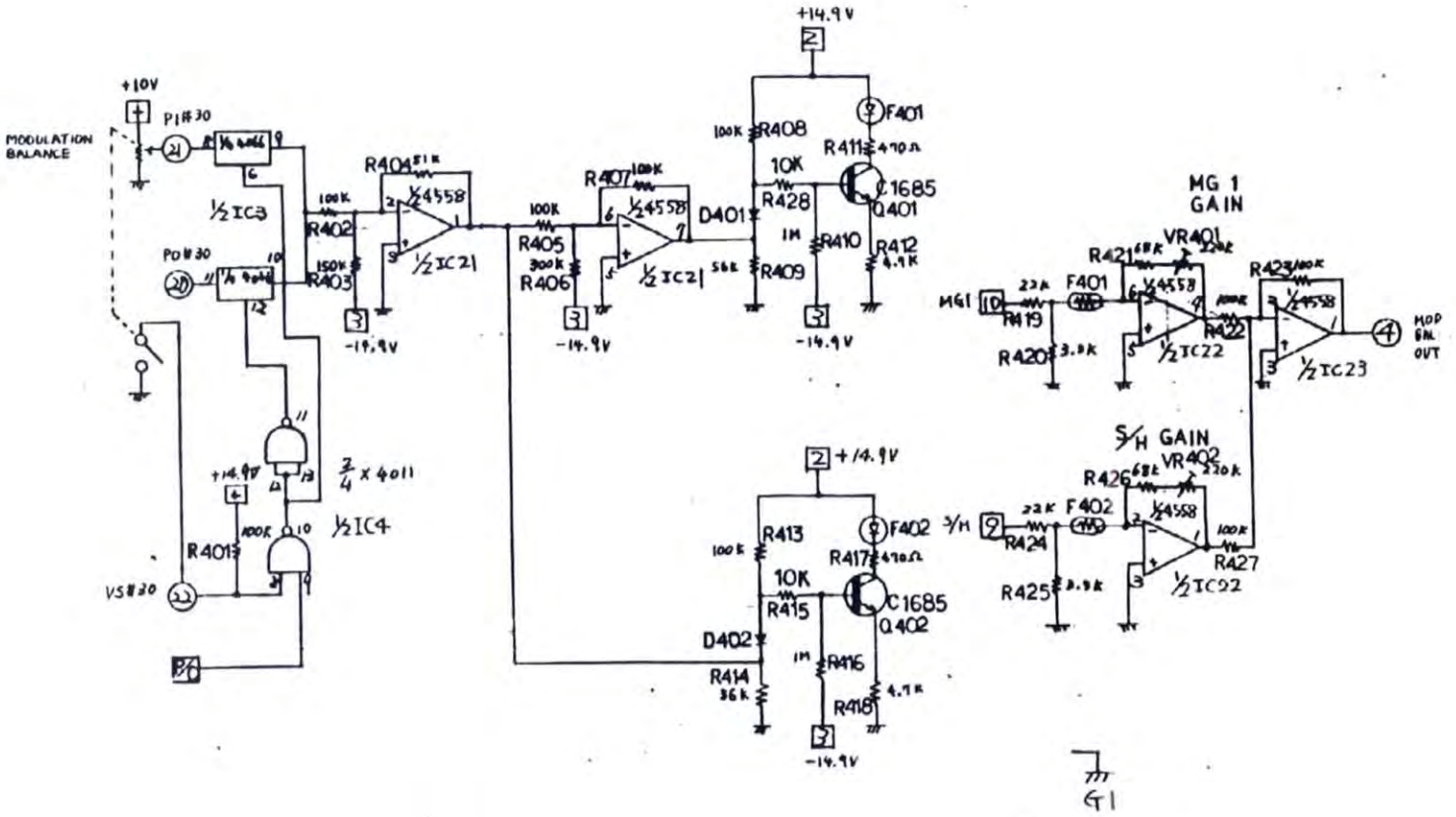


MODEL PS-3200 MG1 CONTROL		REVISION	REVISION	REVISION	REVISION	DWG. NO.
DATE 53-6-24	DRAWN BY M. Sugano	DATE	DATE	DATE	DATE	KOD-A40066

KLM-146

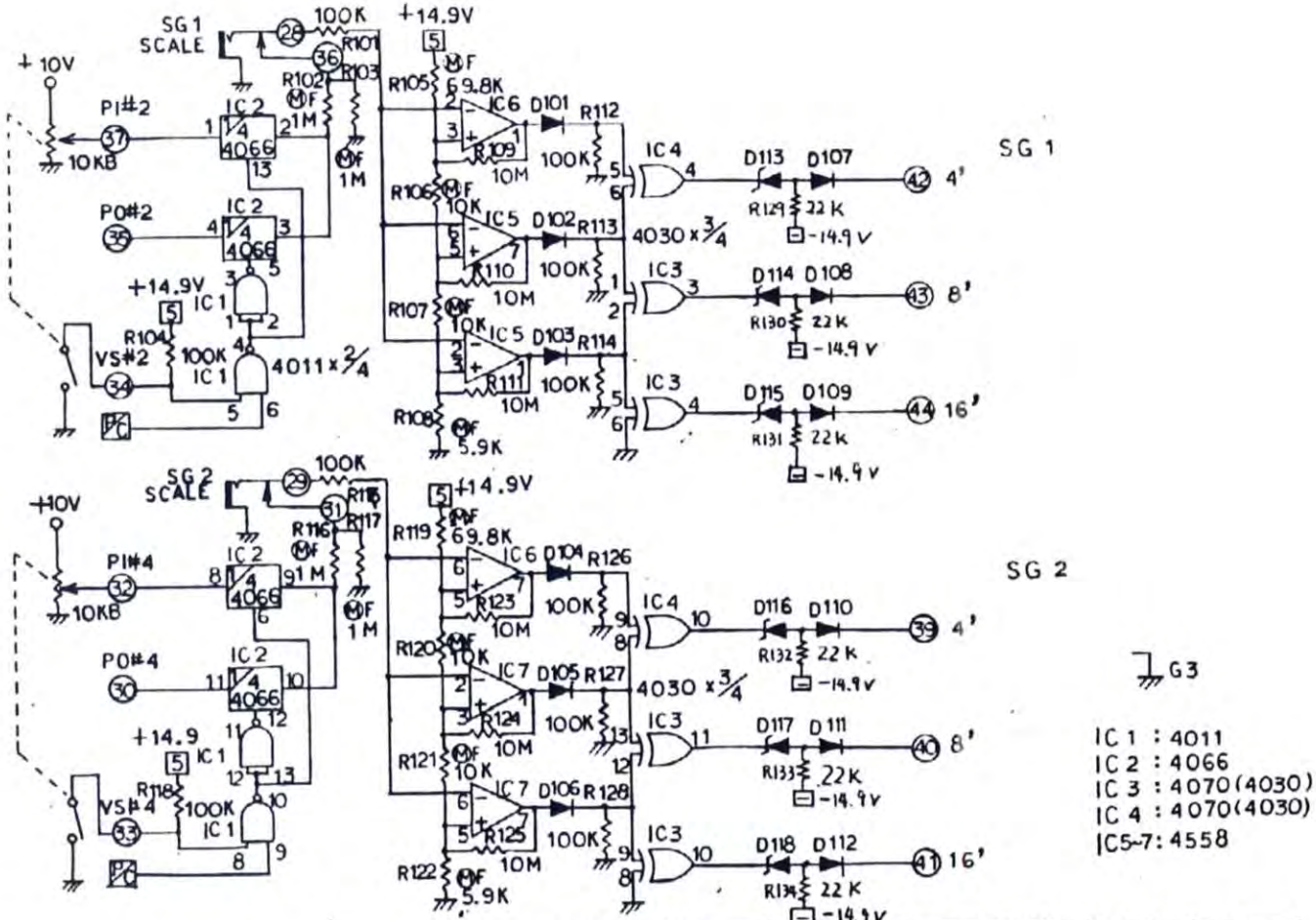


MODEL PS-3300 SAMPLE & HOLD		REVISION	REVISION	REVISION	REVISION	DWG NO.
DATE	DRAWN BY	DATE	DATE	DATE	DATE	KOD-A40067
10-7-78	K. Miyamoto					KLM-146

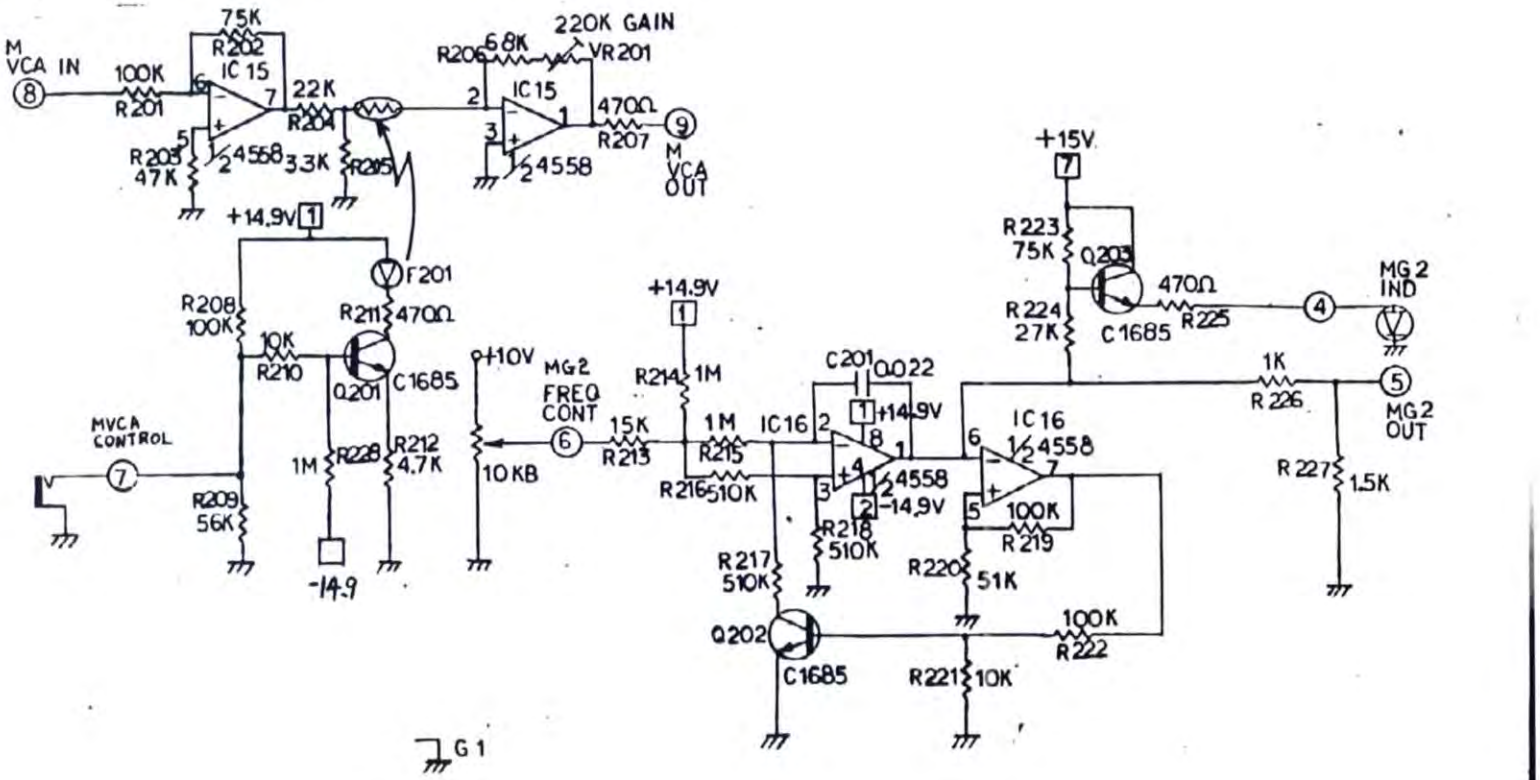


MODEL PS-3200 MODULATION BALANCE		REVISION	REVISION	REVISION	REVISION	DWG. No.
DATE 78-6-24	DRAWN BY M. Sugano	DATE	DATE	DATE	DATE	KOD - A40068

KLM-146

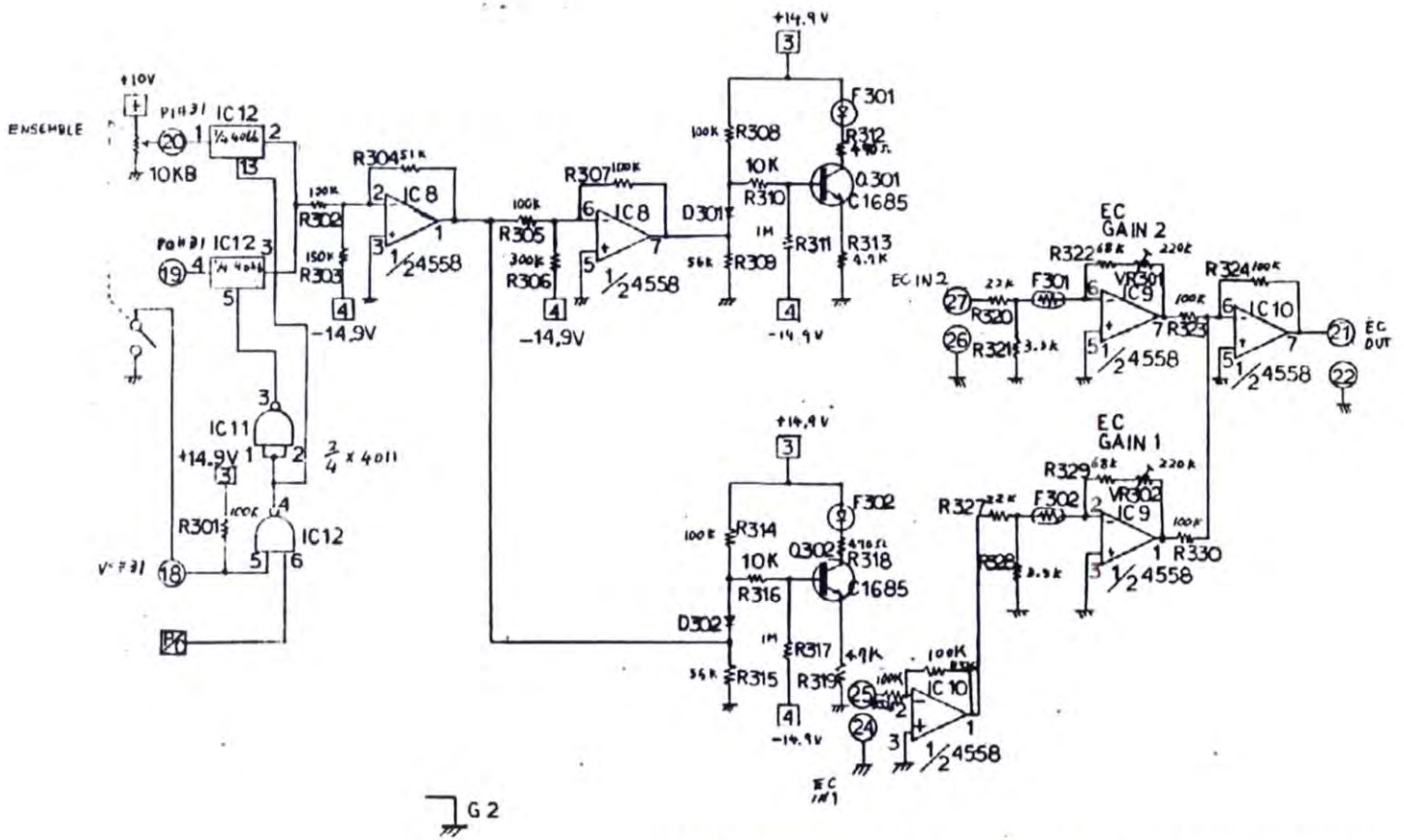

SG 1
SCALE
+10V
PI#2
10KB
PO#2
+14.9V
VS#2
100K
4011 x 1/4
1M
69.8K
10K
10M
4030 x 3/4
D101
D102
D103
D113
D107
D114
D108
D115
D109
R129
R130
R131
22K
-14.9V
4'
8'
16'
SG 2
SCALE
+10V
PI#4
10KB
PO#4
+14.9
VS#4
100K
4011 x 1/4
91M
1M
69.8K
10K
10M
4030 x 3/4
D104
D105
D106
D116
D110
D117
D111
D118
D112
R132
R133
R134
22K
-14.9V
4'
8'
16'
G3
IC 1 : 4011
IC 2 : 4066
IC 3 : 4070(4030)
IC 4 : 4070(4030)
IC5~7: 4558
MODEL PS-3200
SCALE CONTROL
DATE
10-7-78
DRAWN BY
K.H.Yamaki
REVISION
DATE
DWG. NO.
KQD-
A40069

19



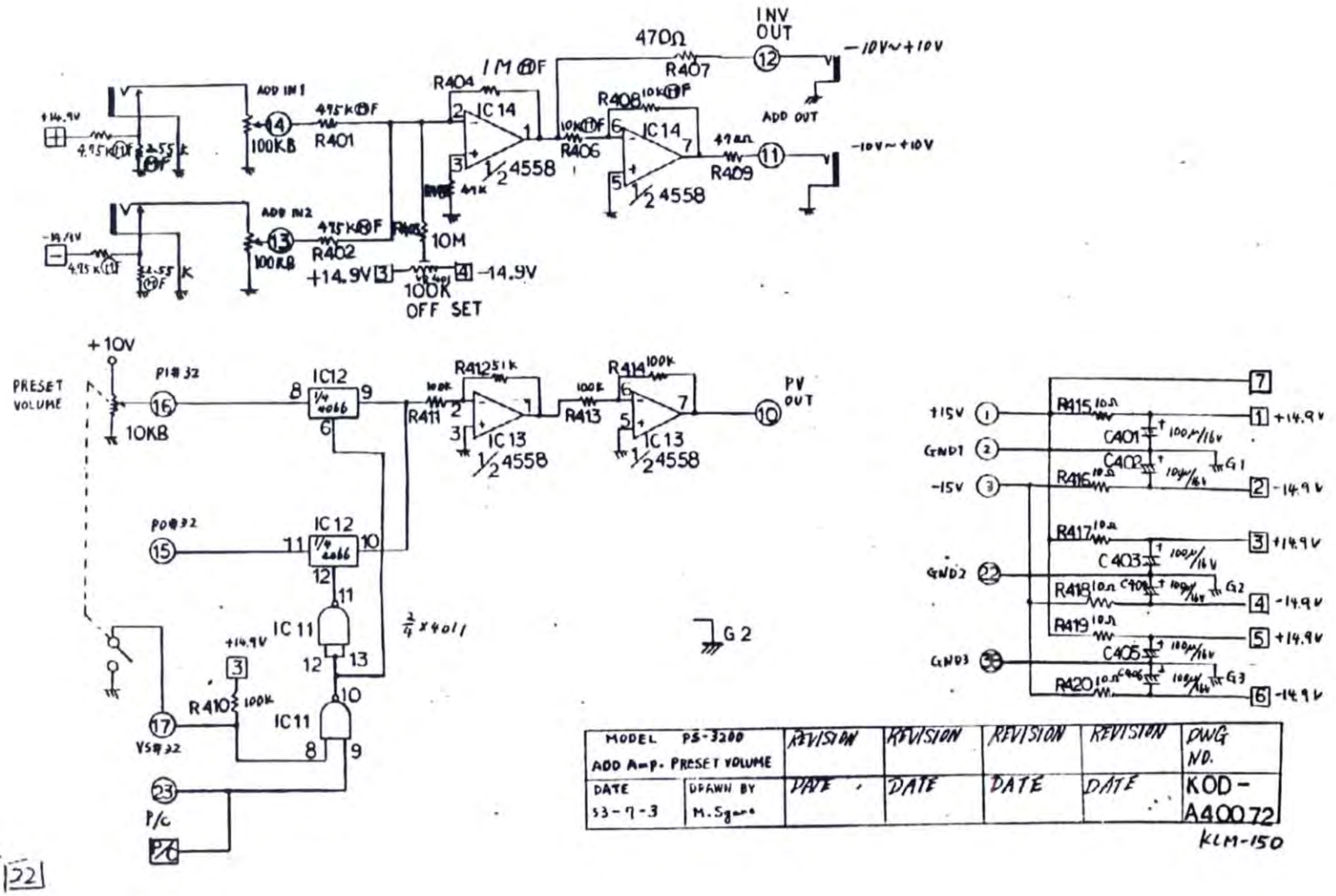
MODEL PS-3200 MOD-VCA, MG 2		REVISION	REVISION	REVISION	REVISION	DWG NO
DATE 10-7-78	DRAWN BY K.MIYAWAKI	DATE	DATE	DATE	DATE	KOD-A40070

KLM-150



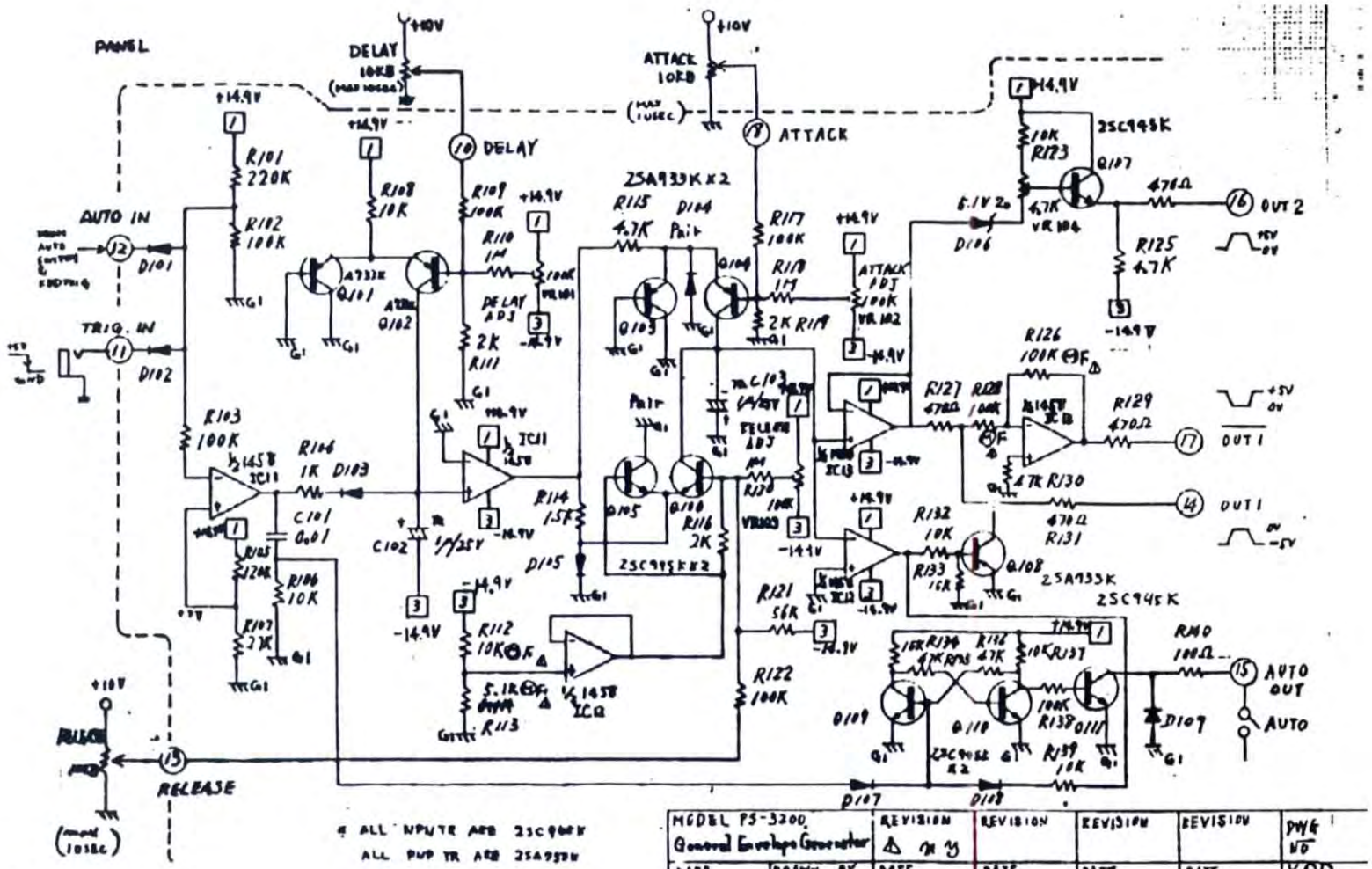
MODEL PG-9200 ENSEMBLE CONTROL		REVISION	REVISION	REVISION	REVISION	DWG NO
DATE	DRAWN BY	DATE	DATE	DATE	DATE	KOD-A40071
12-6-24	M. Suzuno					

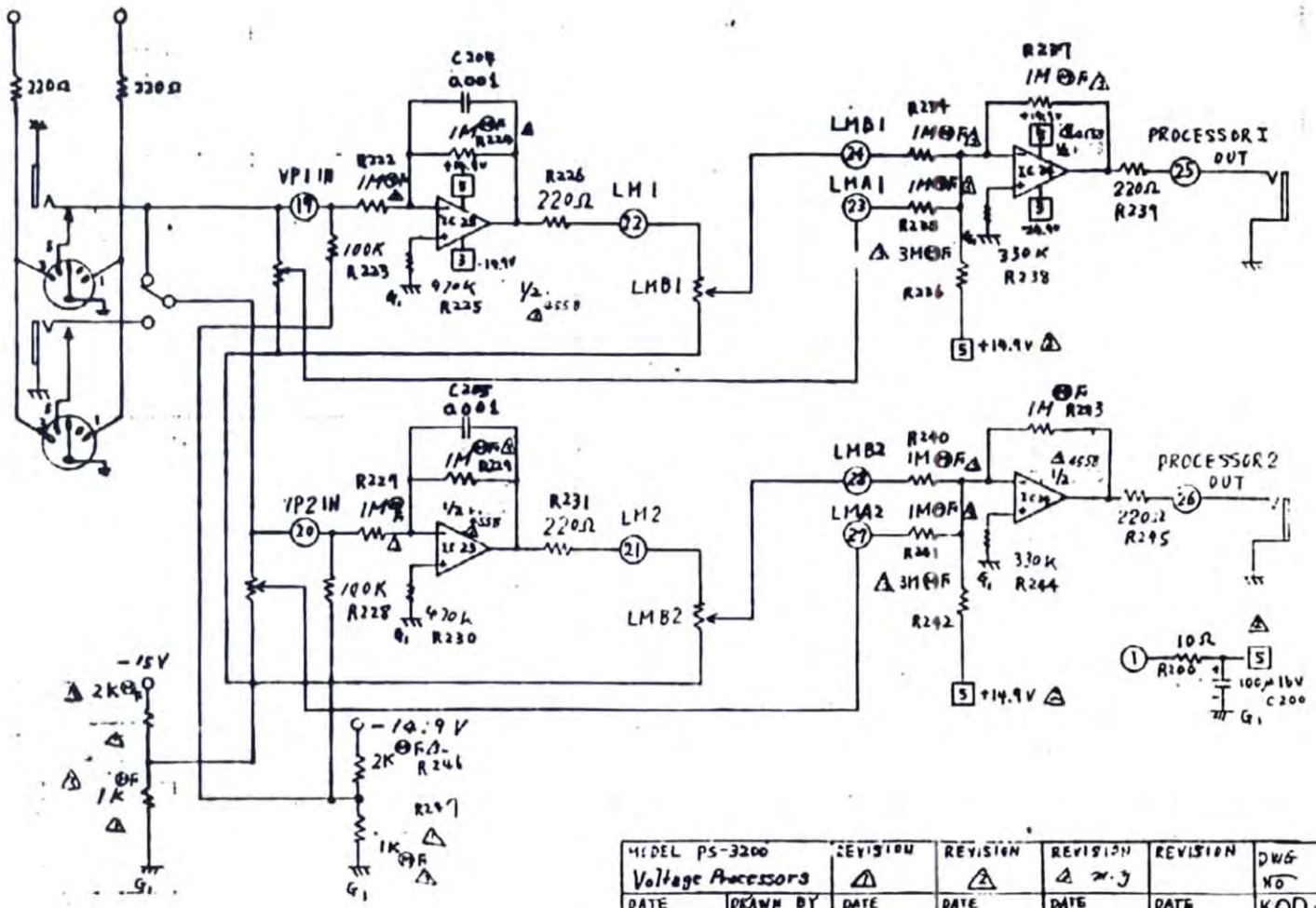
KLM-150



MODEL PS-3200 ADD A-P. PRESET VOLUME		REVISION	REVISION	REVISION	REVISION	DWG NO.
DATE 83-9-3	DRAWN BY M.Sg...	DATE	DATE	DATE	DATE	KOD-A40072

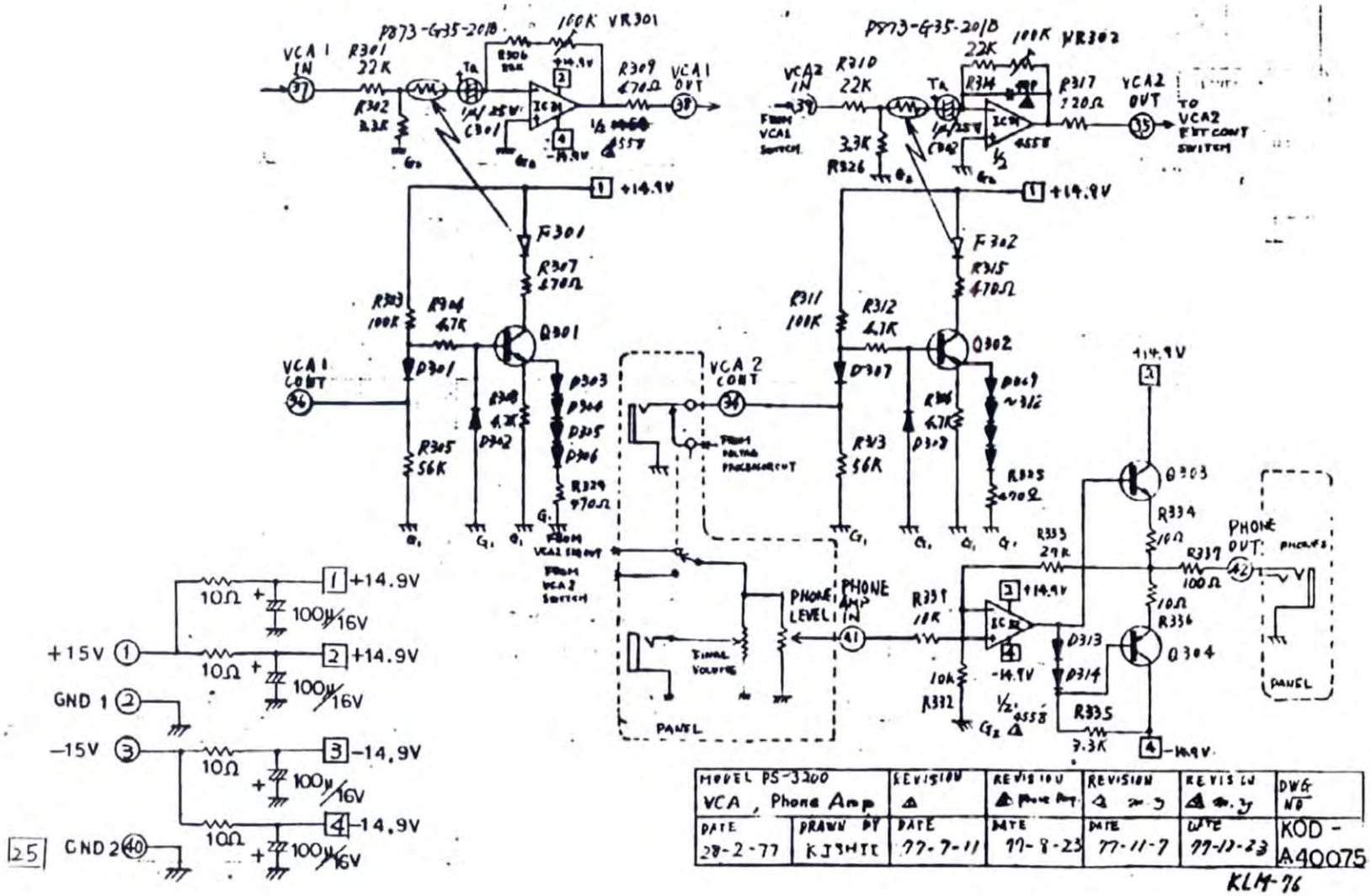
KLM-150


PANEL
DELAY
10KB
ATTACK
10KB
+10V
+14.9V
-14.9V
DELAY
ATTACK
AUTO IN
TRIG. IN
RELEASE
2SA933K x2
2SC945K x2
2SC945K
2SA933K
DELAY ADJ
ATTACK ADJ
RELEASE ADJ
OUT 2
OUT 1
OUT 1
AUTO OUT
AUTO
R101 220K
R102 100K
R103 100K
R104 1K
R105 120K
R106 10K
R107 2K
R108 10K
R109 100K
R110 1M
R111 2K
R112 10K
R113 5.1K
R114 1.5K
R115 4.7K
R116 2K
R117 100K
R118 1M
R119 2K
R120 10K
R121 56K
R122 100K
R123 10K
R124 4.7K
R125 4.7K
R126 100K
R127 470Ω
R128 10K
R129 470Ω
R130 4.7K
R131 470Ω
R132 10K
R133 1K
R134 10K
R135 4.7K
R136 4.7K
R137 10K
R138 100K
R139 10K
R140 100Ω
C101 0.01
C102 1μ/25V
C103 1μ/25V
D101
D102
D103
D104 Pair
D105
D106
D107
D108
Q101 2SA933K
Q102
Q103
Q104
Q105 Pair
Q106
Q107 2SC945K
Q108 2SA933K 2SC945K
Q109
Q110
Q111
IC11 ½ 1458
IC12 ½ 1458
IC13 ½ 1458
IC14 ½ 1458
VR101 100K
VR102 100K
VR103 10K
VR104 4.7K
VR105 5.1K
VR106 10K
6.1V Zo
-14.9V
ALL NPN TR ARE 2SC945K
ALL PNP TR ARE 2SA933K
MODEL PS-3200
General Envelope Generator
REVISION
DATE
DRAWN BY
K.ISHII
26-2-77
77-11-10
PAGE
KOD-A4007.
KLM-76
23



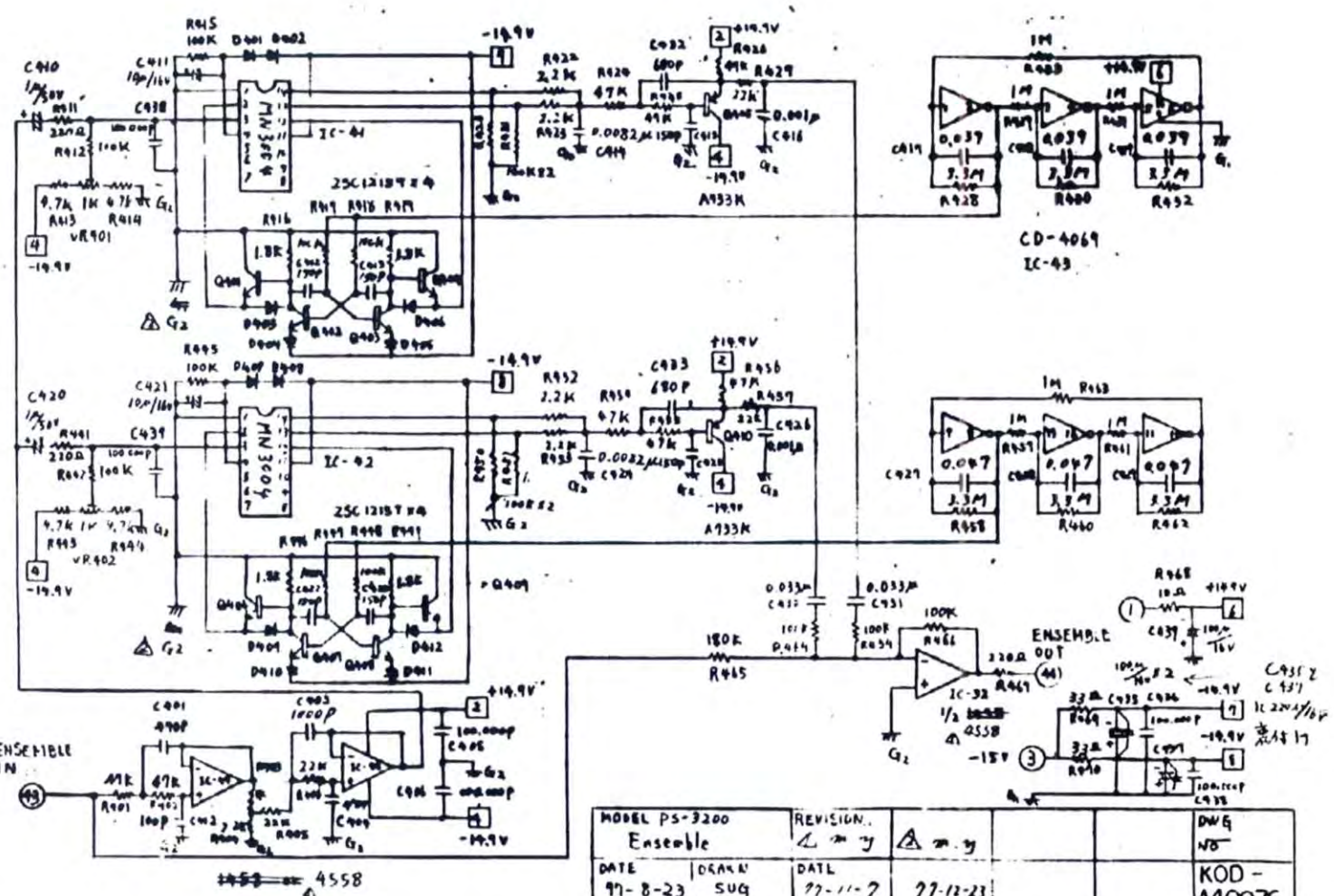
MODEL PS-3200 Voltage Processors		REVISION ⚠	REVISION ⚠	REVISION ⚠ M.J	REVISION	DWG NO
DATE 78-2-77	DRAWN BY K.ISHII	DATE 52-9-11	DATE 52-8-22	DATE 77.11.7	DATE	KOD-A40074

KLM-76

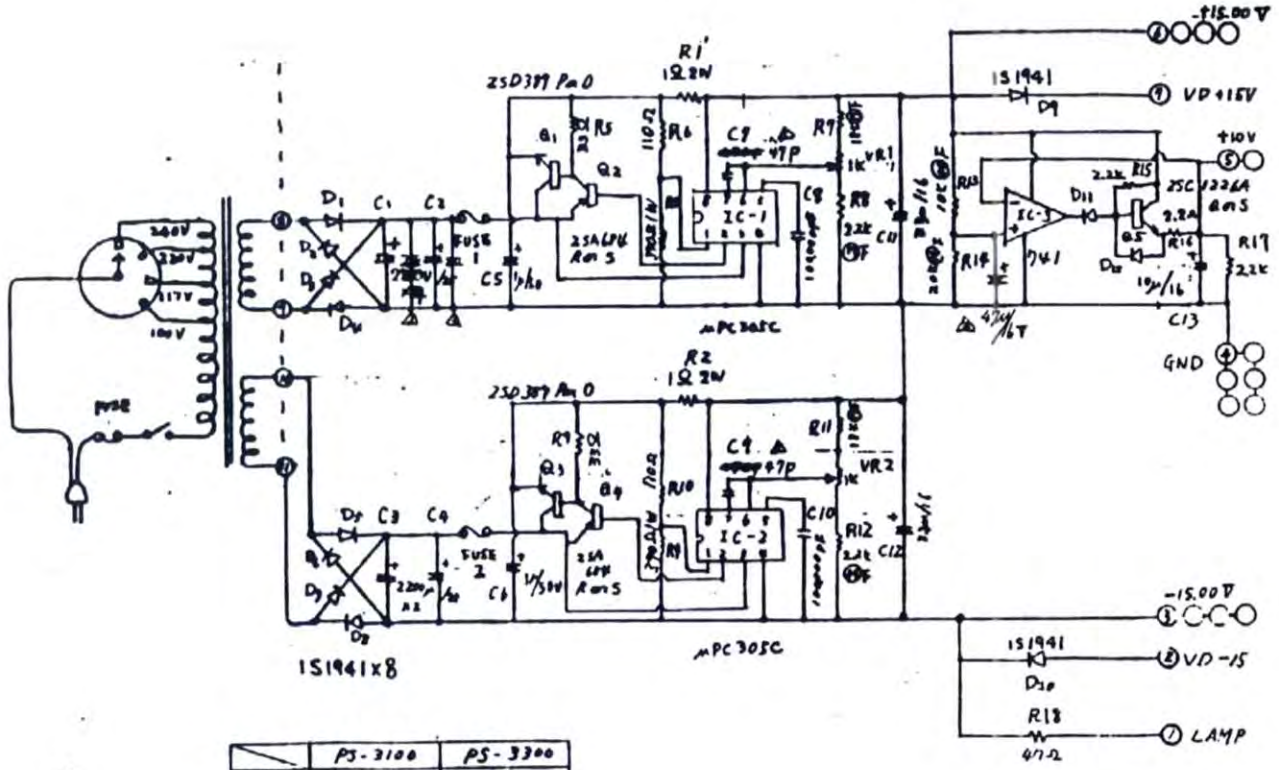


MODEL PS-3200 VCA, Phone Amp		REVISION A	REVISION A Phone Amp	REVISION A → D	REVISION A → J	DWG NO
DATE 28-2-77	DRAWN BY KJSHIE	DATE 77-7-11	DATE 77-8-23	DATE 77-11-7	DATE 77-12-23	KOD - A40075

KLM-76


ENSEMBLE IN
ENSEMBLE OUT
CD-4069
IC-43
MN3004
IC-41
IC-42
IC-32
2SC1213T
A933K
-14.9V
+14.9V
-19.9V
-15V
4558
MODEL PS-3200
Ensemble
REVISION
DWG NO
DATE 97-8-23
DRAWN SUG
KOD-A40076

X-803

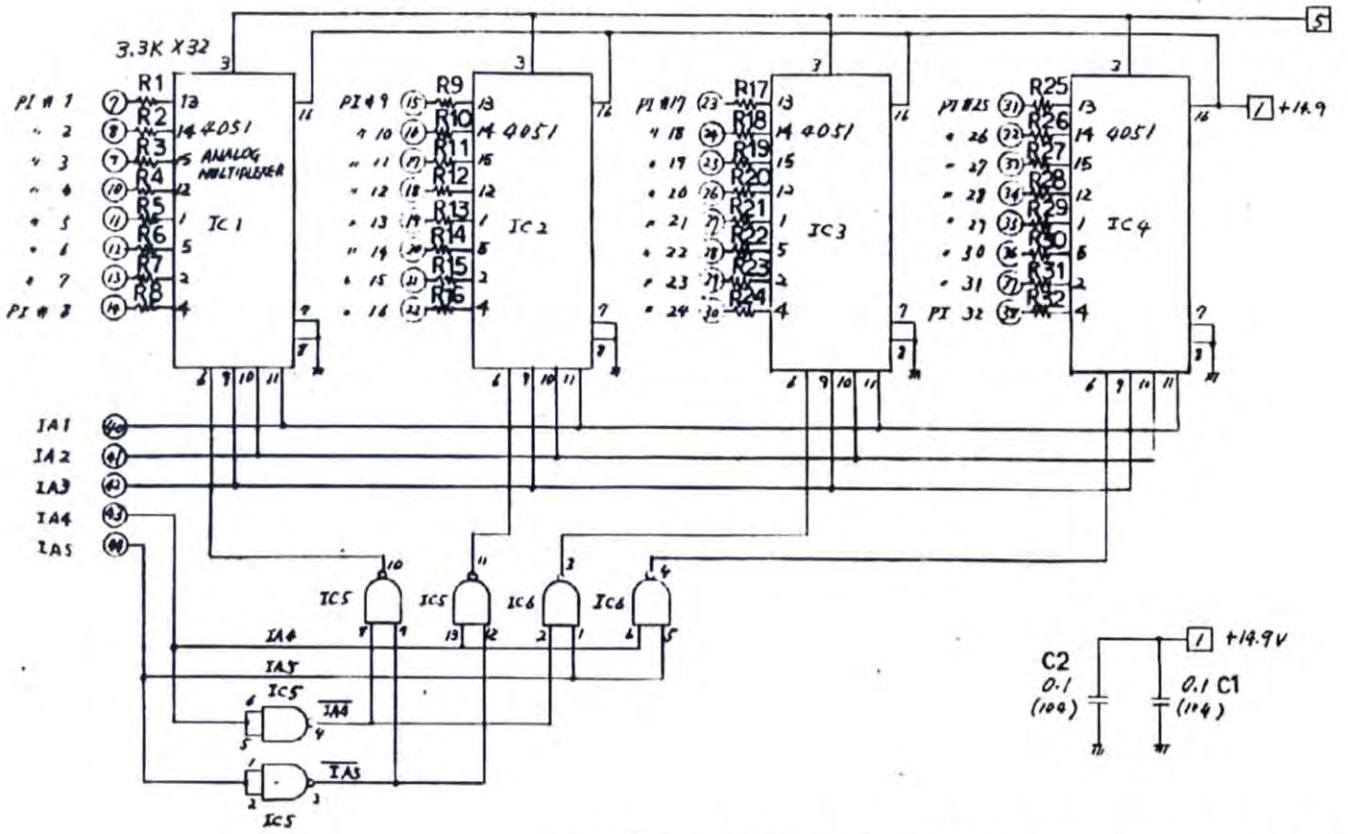


	PS-3100	PS-3300
AC FUSE	1A	2A
FUSE 1	1A FAST	2A FAST
FUSE 2	1A FAST	2A FAST

MODEL PS-3300 POWER SUPPLY	REVISION △1	REVISION △2	REVISION	DWG NO
DATE 77-5-11	DATE 52.10.11	DATE 53.12	DATE	KOD -- A40077

KLM-65B

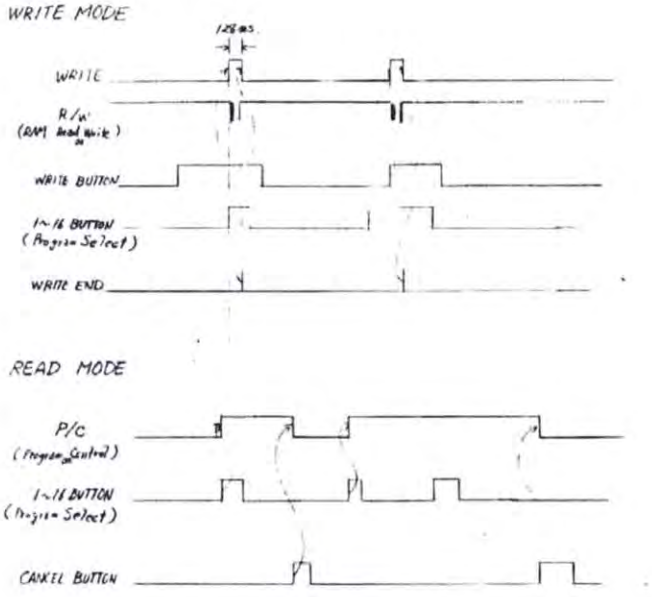
AD-IN



MODEL PS-3200 PROGRAMMER INPUT SCANNER		REVISION	REVISION	REVISION	REVISION	DWG NO.
DATE 93-6-28	DRAWN BY M. Yokosuka	DATE	DATE	DATE	DATE	KOD-A40081

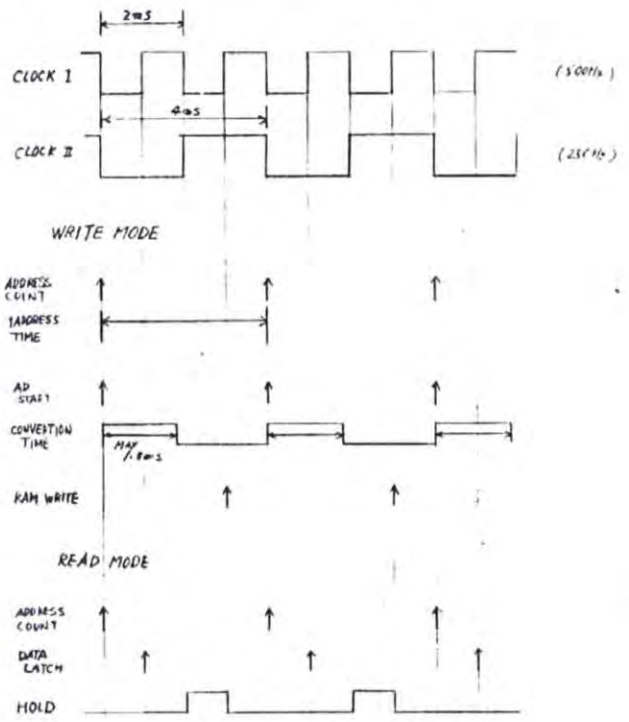
KLM-151

PROGRAMMER TIMING CHART (1)



MODEL PS-3300 PROGRAMMER TIMING CHART (I)		DWG NUMBER
DATE 1978-9-14	DRAWN BY M. Yokomaku	KOD-A40078

PROGRAMMER TIMING CHART (II)



ONE CYCLE : 4ms × 32 = 128ms

MODEL PS-3300 PROGRAMMER TIMING CHART (II)		DWG NUMBER
DATE 1978-7-13	DRAWN BY M. Yokouchi	KOD-A40079

* ADDRESS CHART

PA
(Program Address)

PUSH BUTTON	PA4 (D3)	PA3 (D2)	PA2 (D1)	PA1 (D0)
1	0	0	0	0
2	0	0	0	1
3	0	0	1	0
4	0	0	1	1
5	0	1	0	0
6	0	1	0	1
7	0	1	1	0
8	0	1	1	1
9	1	0	0	0
10	1	0	0	1
11	1	0	1	0
12	1	0	1	1
13	1	1	0	0
14	1	1	0	1
15	1	1	1	0
16	1	1	1	1

NOTICE (1)
"1" = "H" = +15V.
"0" = "L" = 0V

IA
(Item Address)

KNOB	PJ or PO NUMBER	IA5 (D4)	IA4 (D3)	IA3 (D2)	IA2 (D1)	IA1 (D0)
SG1 WAVE FORM	#1	0	0	0	0	0
SG1 SCALE	#2	0	0	0	0	1
SG2 WAVE FORM	#3	0	0	0	1	0
SG2 SCALE	#4	0	0	0	1	1
SG2 FREQUENCY	#5	0	0	1	0	0
TOTAL PWM SPEED	#6	0	0	1	0	1
TOTAL PWM INTENSITY	#7	0	0	1	1	0
TOTAL FREQ MOD AM.	#8	0	0	1	1	1
DLPF CUTOFF FREQ	#9	0	1	0	0	0
DLPF PEAK	#10	0	1	0	0	1
DLPF KBD FILT BAL	#11	0	1	0	1	0
DLPF EXPAND	#12	0	1	0	1	1
DLPF MOD INTEN.	#13	0	1	1	0	0
EM ATTACK TIME	#14	0	1	1	0	1
EM DECAY TIME	#15	0	1	1	1	0
EM SUSTAIN LEVEL	#16	0	1	1	1	1
EM RELEASE TIME	#17	1	0	0	0	0
EQ 8 KHz	#18	1	0	0	0	1
EQ 4 KHz	#19	1	0	0	1	0
EQ 2 KHz	#20	1	0	0	1	1
EQ 1 KHz	#21	1	0	1	0	0
EQ 500 Hz	#22	1	0	1	0	1
EQ 250 Hz	#23	1	0	1	1	0
EQ 125 Hz	#24	1	0	1	1	1
AMPLITUDE MODULATE	#25	1	1	0	0	0
KBD VOL BAL	#26	1	1	0	0	1
MG1 WAVE FORM	#27	1	1	0	1	0
MG1 FREQUENCY	#28	1	1	0	1	1
1/n CLOCK	#29	1	1	1	0	0
MODULATION BAL	#30	1	1	1	0	1
ENSEMBLE	#31	1	1	1	1	0
PRESET VOLUME	#32	1	1	1	1	1

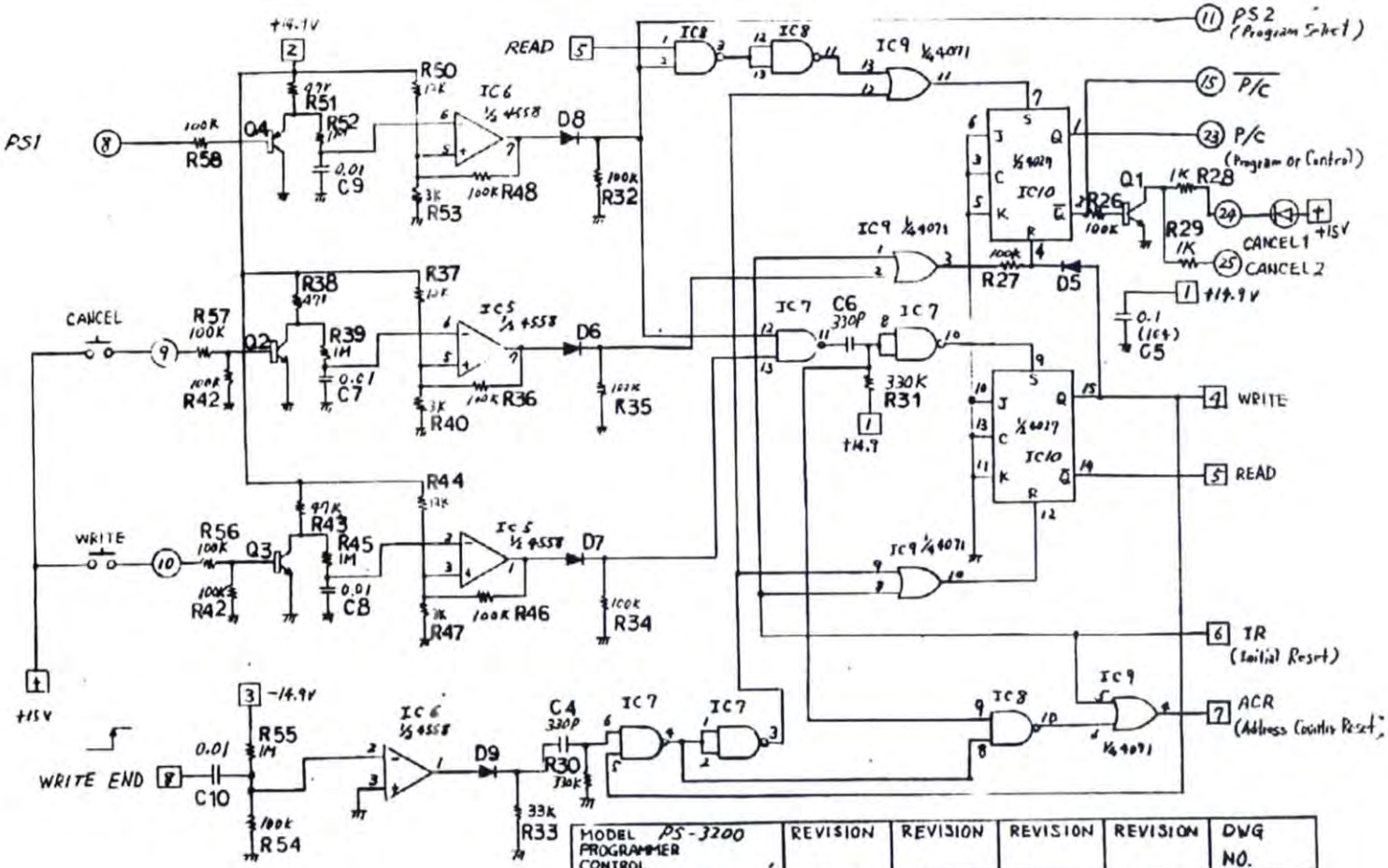
* DATA CHART

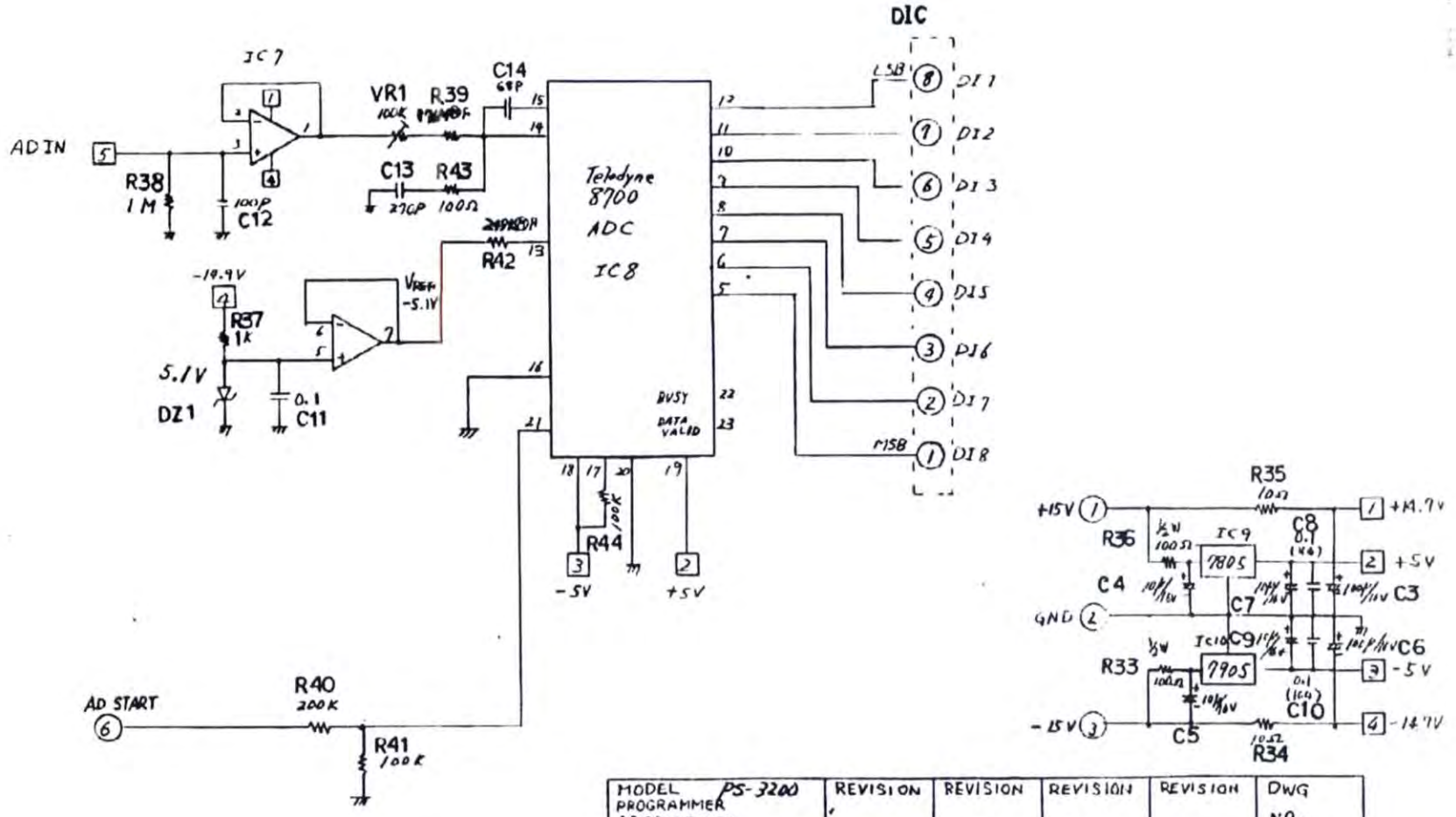
DAC
ADC

ANALOG DATA	DIGITAL DATA DI 8 OR DO 8	DI 7 DO 7	DI 6 DO 6	DI 5 DO 5	DI 4 DO 4	DI 3 DO 3	DI 2 DO 2	DI 1 DO 1
0.0000V	0	0	0	0	0	0	0	0
0.0392	0	0	0	0	0	0	0	1
0.1176	0	0	0	0	0	0	1	1
0.2745	0	0	0	0	0	1	1	1
0.5882	0	0	0	0	1	1	1	1
1.2156	0	0	0	1	1	1	1	1
2.4705	0	0	1	1	1	1	1	1
4.9803	0	1	1	1	1	1	1	1
10.0000 V	1	1	1	1	1	1	1	1

NOTICE (2)
"1" = "H" = +5V
"0" = "L" = 0V

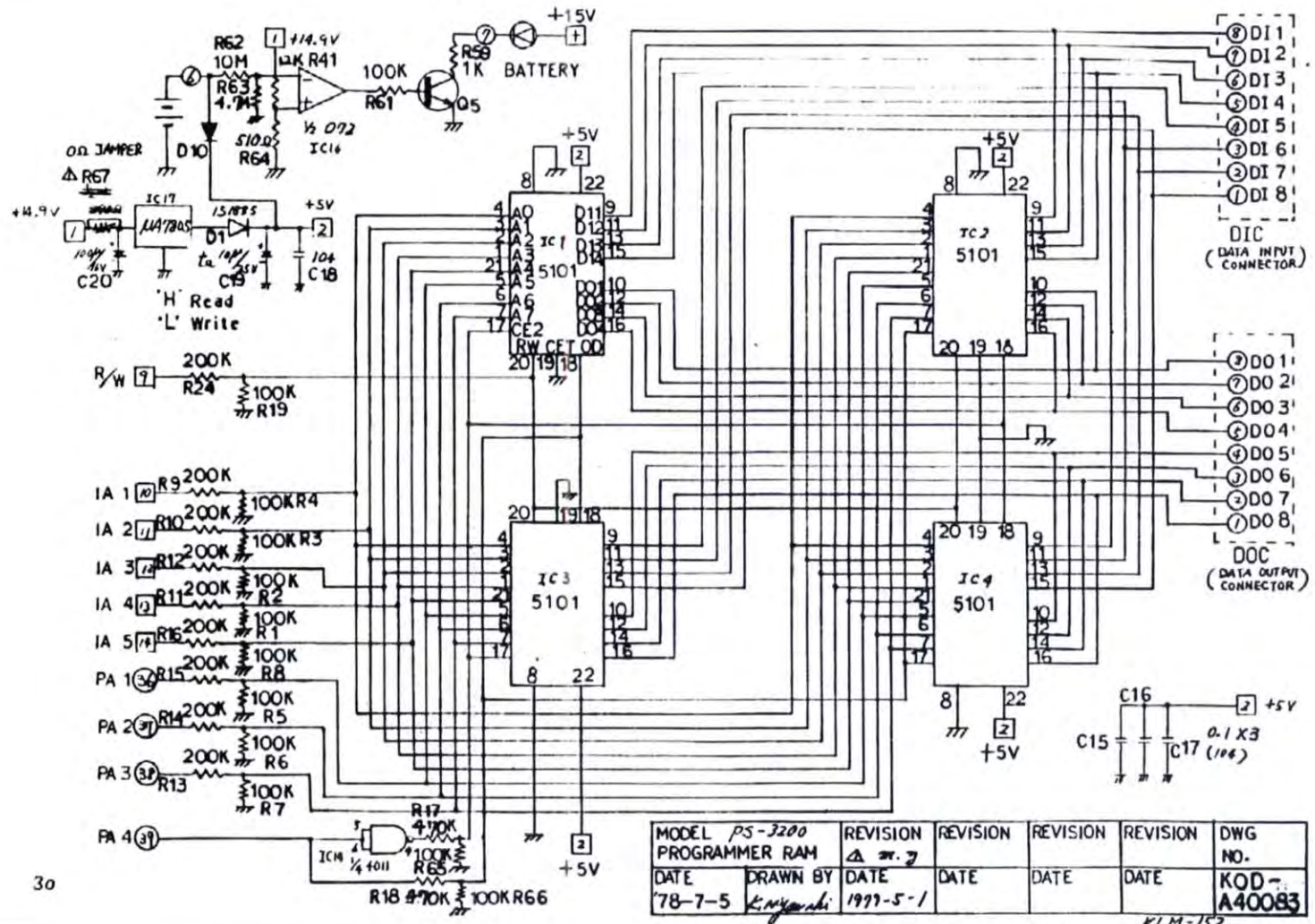
MODEL PS-3200
ADDRESS & DATA CHART
DRAWN BY [illegible] 1978-12-16
DWG NO KBD-A0005


PS1
READ
CANCEL
WRITE
WRITE END
+15V
-14.9V
+14.9V
R50
R51
R52
R53
R58
R48
R32
R37
R38
R39
R40
R57
R42
R36
R35
R44
R43
R45
R56
R47
R46
R34
R55
R54
R33
C9
C7
C8
C10
C6
C4
C5
R31
R27
R26
R28
R29
Q1
Q2
Q3
D8
D6
D7
D9
IC6 ½ 4558
IC5 ½ 4558
IC7
IC8
IC9 ¼4071
IC10 ½4027
PS2 (Program Select)
P/C
P/C (Program or Control)
CANCEL1
CANCEL2
WRITE
READ
IR (Initial Reset)
ACR (Address Counter Reset)
MODEL PS-3200 PROGRAMMER CONTROL
REVISION
DATE
DRAWN BY M Tokumaru
DWG NO. KOD-A40084
NAND GATE : 4011
KLM-152



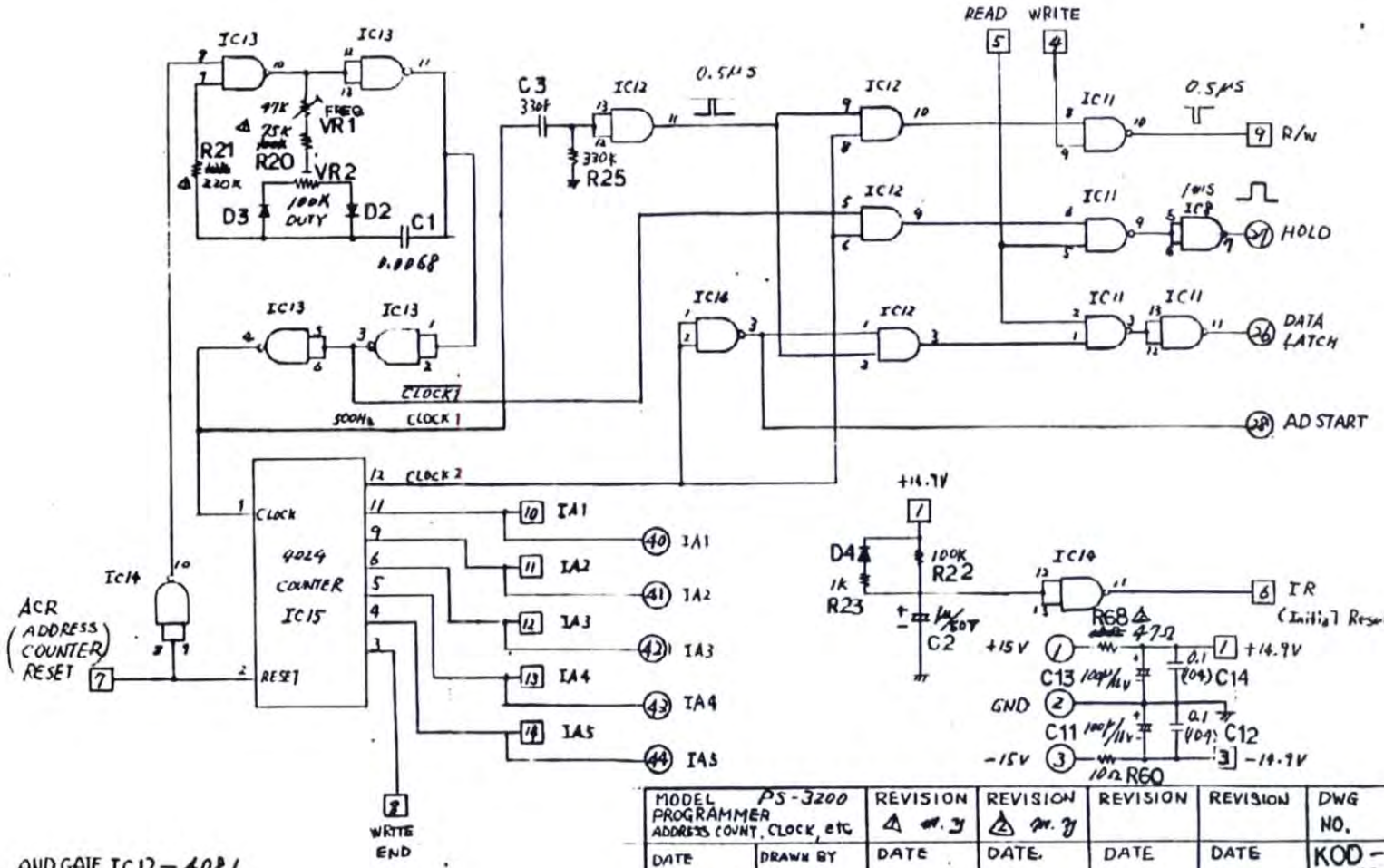
MODEL PROGRAMMER ADCONVERTER	PS-3200	REVISION	REVISION	REVISION	REVISION	DWG NO.
DATE	DRAWN BY	DATE	DATE	DATE	DATE	KOD-A40082
78-7-12	M. Yokouchi					

KLM-151



MODEL PS-3200 PROGRAMMER RAM		REVISION △ nr. 7	REVISION	REVISION	REVISION	DWG NO.
DATE '78-7-5	DRAWN BY K. Miyauchi	DATE 1999-5-1	DATE	DATE	DATE	KOD-A40083

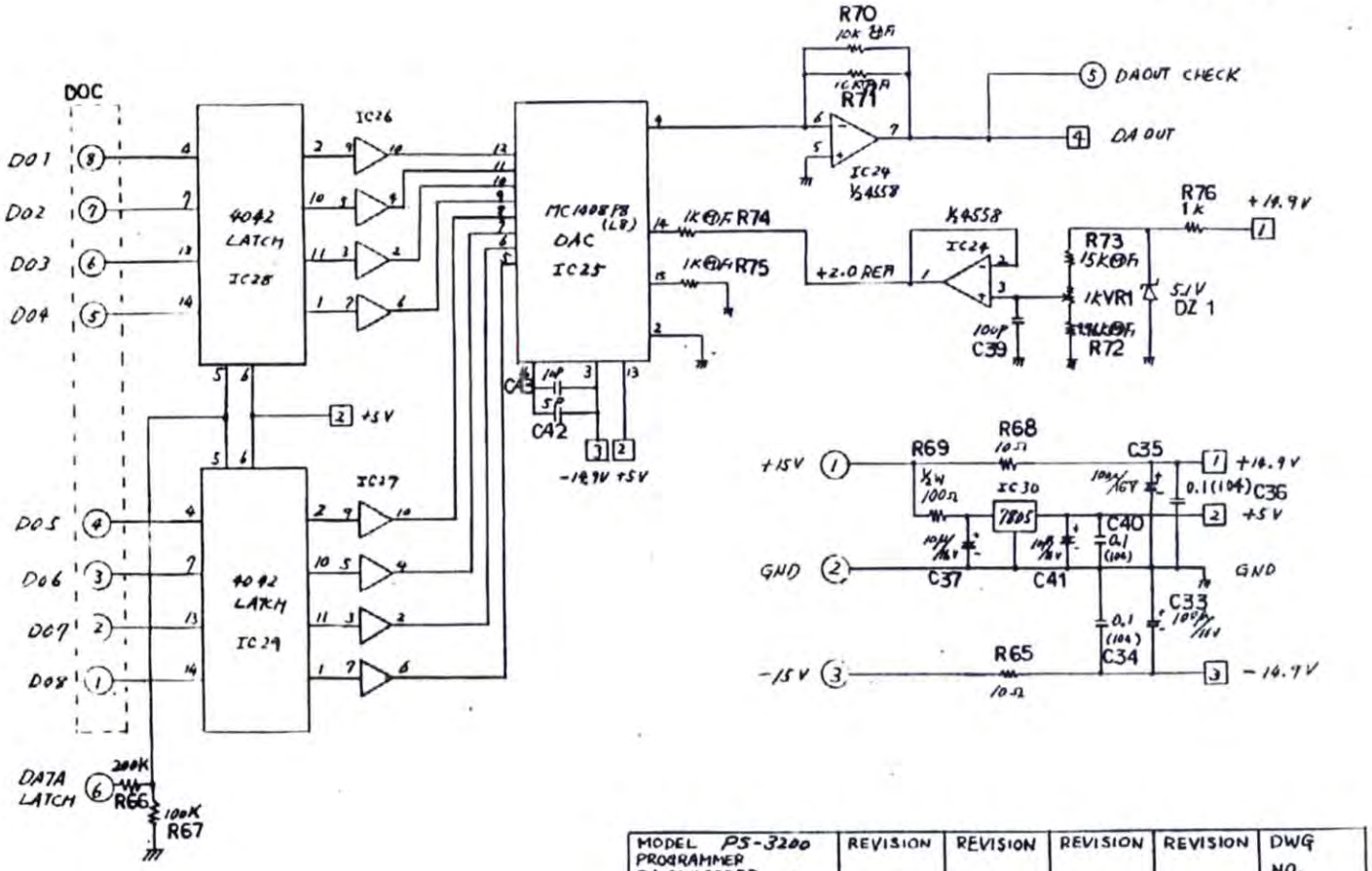
KLM-152



AND GATE IC12 — 4081
NAND GATE : 4011

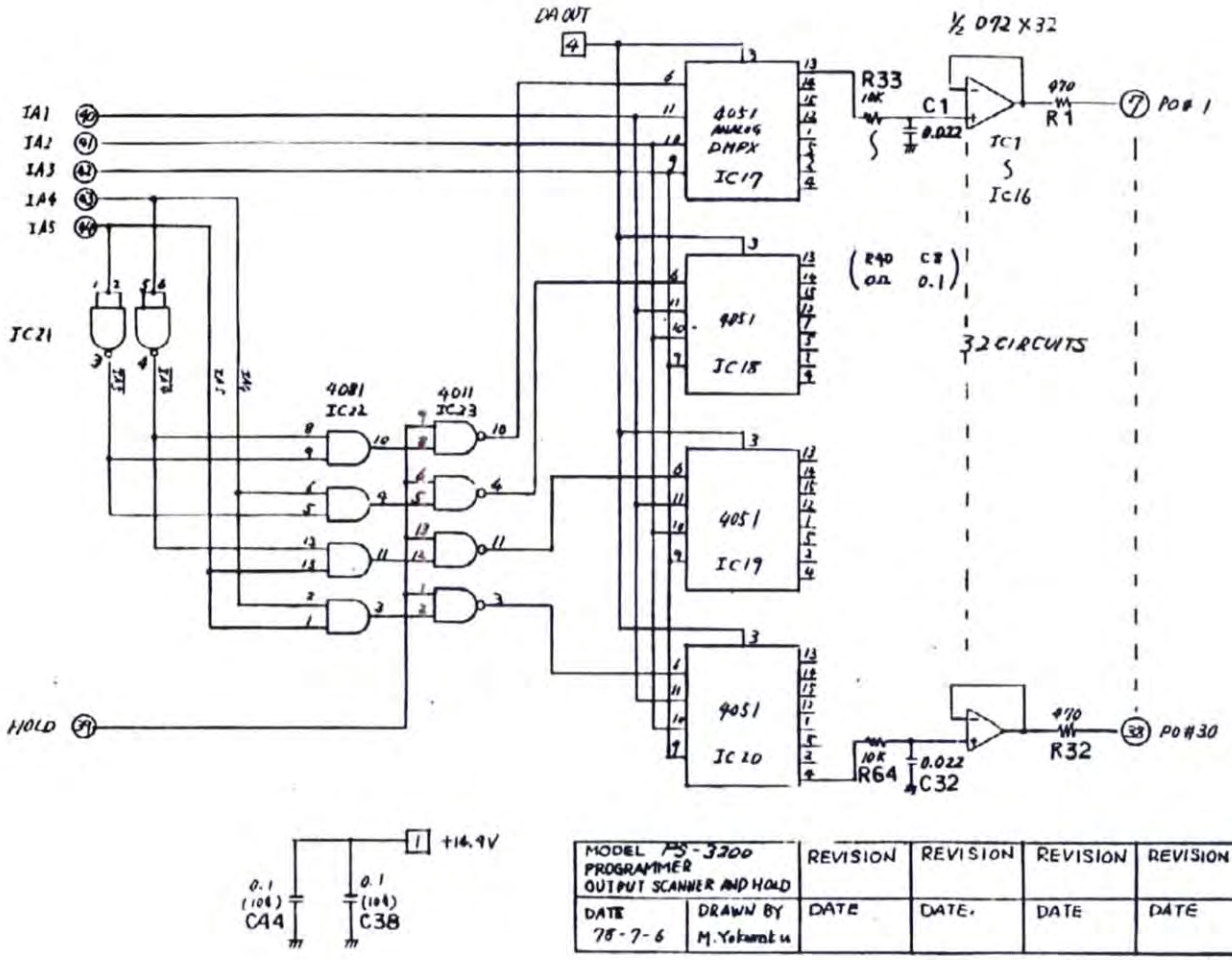
MODEL PS-3200 PROGRAMMER ADDRESS COUNT, CLOCK, etc		REVISION △1	REVISION △2	REVISION	REVISION	DWG NO.
DATE 1998-7-13	DRAWN BY M. Yokomaku	DATE 1999-1-18	DATE 1999-5-1	DATE	DATE	KOD-A40085

KLM-152



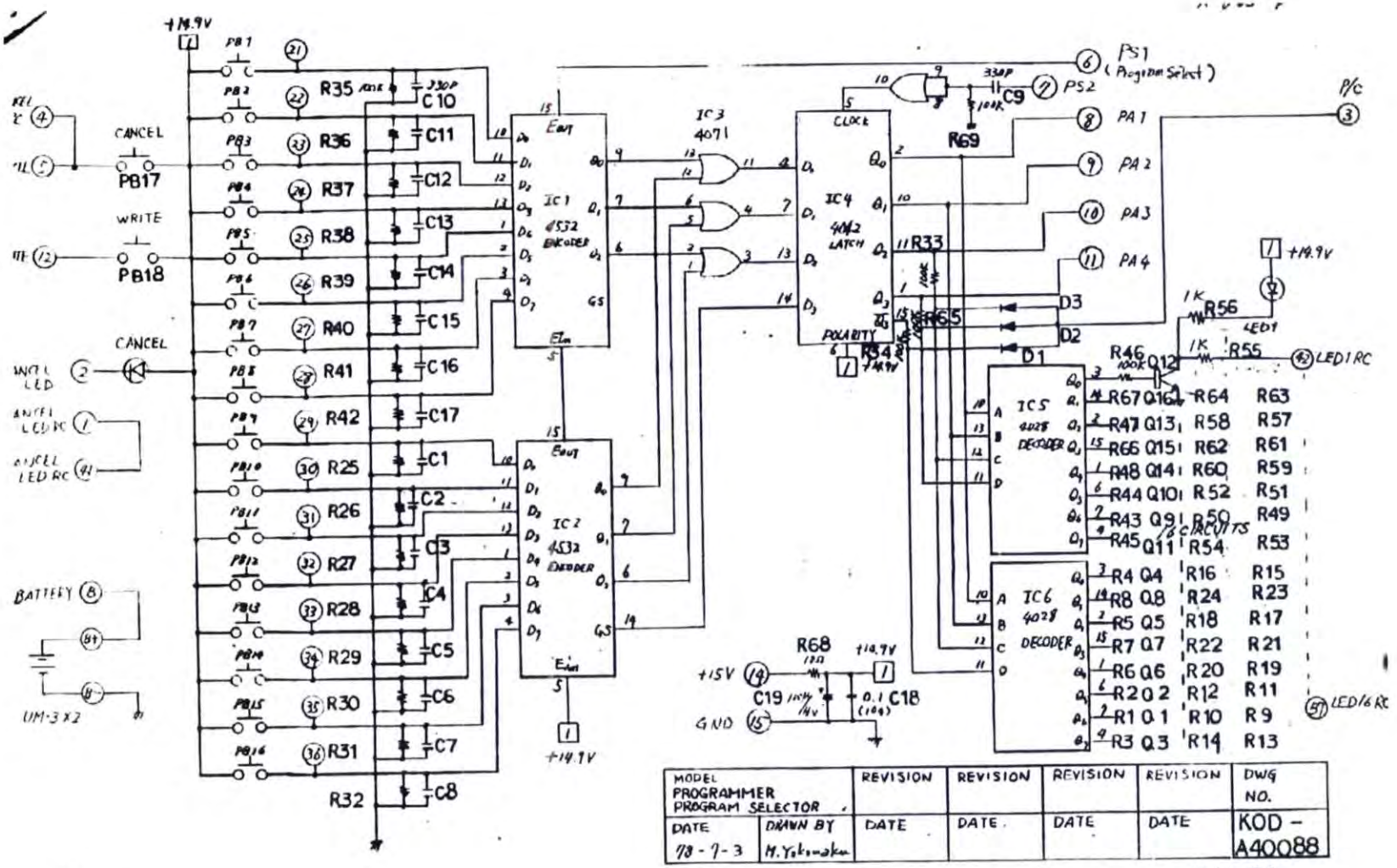
MODEL PS-3200 PROGRAMMER DA CONVERTER		REVISION	REVISION	REVISION	REVISION	DWG NO.
DATE	DRAWN BY	DATE	DATE	DATE	DATE	KOD-A40086
78-8-3	M. Yokosuka					

KLM-153



MODEL PS-3200 PROGRAMMER OUTPUT SCANNER AND HOLD		REVISION	REVISION	REVISION	REVISION	DWG NO.
DATE 78-7-6	DRAWN BY M. Yokomichi	DATE	DATE	DATE	DATE	KOD-A40087

KLM-153



MODEL		REVISION	REVISION	REVISION	REVISION	DWG NO.
PROGRAMMER PROGRAM SELECTOR						
DATE	DRAWN BY	DATE	DATE	DATE	DATE	KOD – A40088
78-7-3	M. Yokomaku					

KLM-154