CIRCUIT DIAGRAMS

JSM-T330A/JSM-T220A

SCANNING MICROSCOPE

JEOL

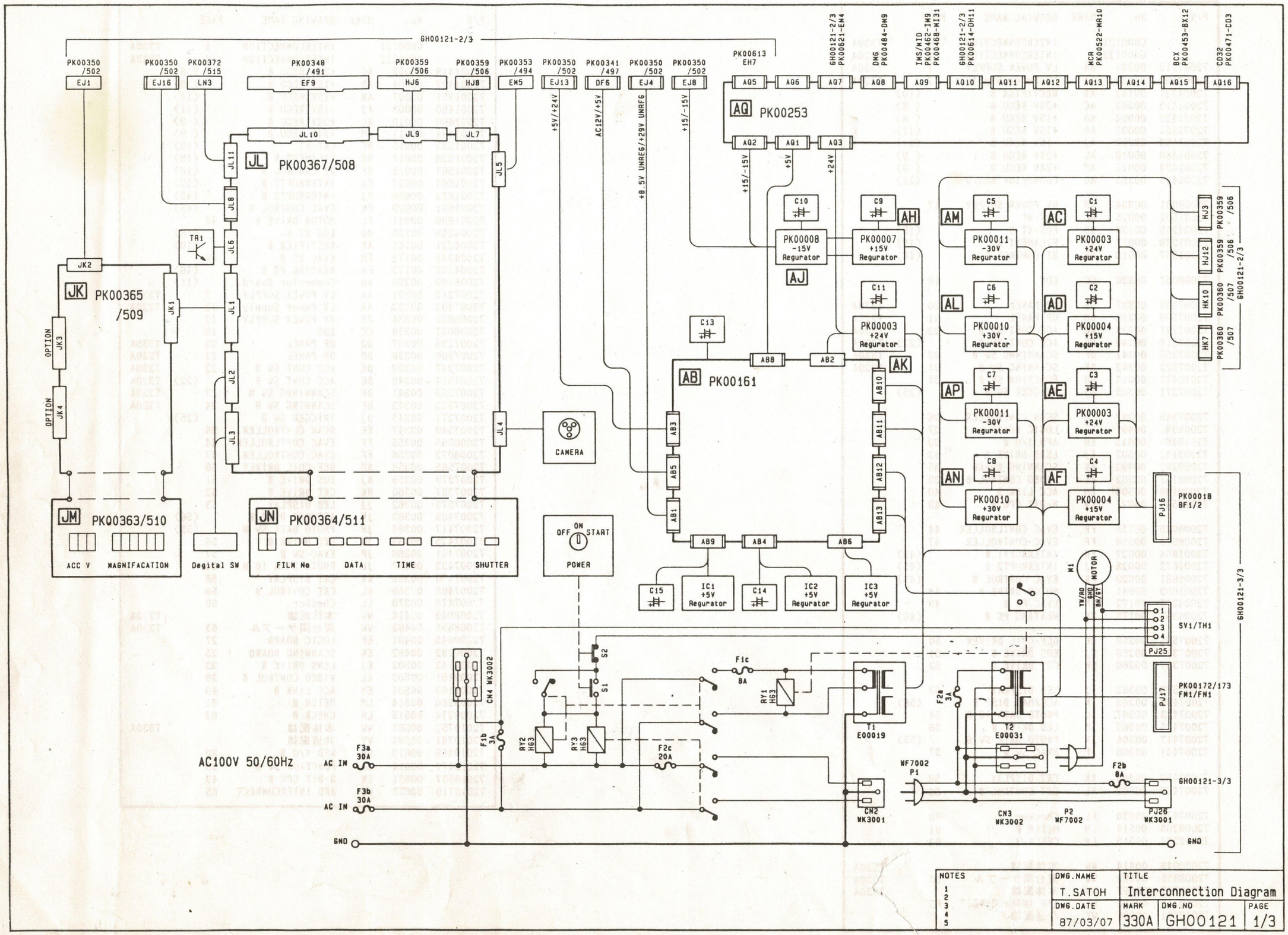
NO. SSMT330A/T220A-1
(MP168101/MP169101)

8705001KP

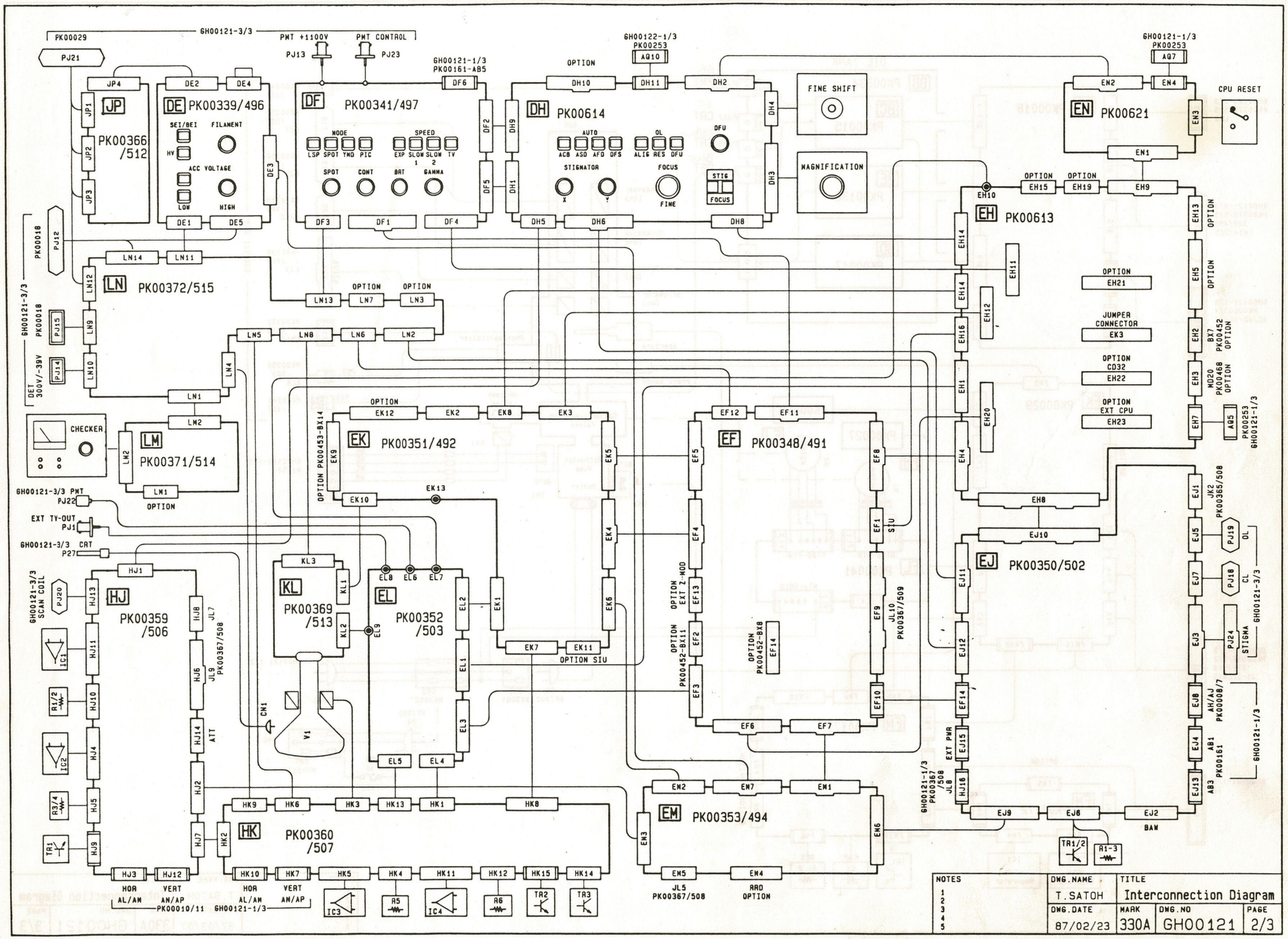
JEOL LTD./JEOL TECHNICS LTD.
Tokyo Japan

P/N	No.	MARK	DRAWING NAME	PAGE		
	GH00121		INTERCONNECTION	1		T330A
	GH00122		INTERCONNECTION	4		T220A
72007212	00331	AA	LV POWER SUPPLY	7		T330A
72007492	00332	AA	LV Power Supply	12		T220A
72004221	00161	AB	RECTIFIER B		(10)	
72001419	00003	AC	+24V REGU B		(8)	
72001427	00004	AD	+15V REGU B		(8)	
72001451	00007	AH	+15V REGU B		(11)	
72001460	00008	AJ	-15V REGU B		(11)	
72001486	00010	AL	+24V REGU B		(9)	
72001494	00011	AM	+24V REGU B		(9)	
72005449	00253	AQ	Connector Board		(11)	
72008031	00334	BB	HV POWER SUPPLY	17		
72001532	00015	BC	CRT-HT		(18)	
72004248	00136	BD	EOS-HT B		(18)	
72001338	00017	BE	FILAMENT B		(18)	
72001567	00018	BF	HT CONTROL B		(18)	
72008057	00336	CC	EOS	19		
72007239	00337	DD	OP PANEL	20		T330A
72007506	00338	DD	OP PANEL	21		T220A
72007247	00339	DE	ACC CONT SW B	22		T330A
72007514	00340	DE	ACC CONT SW B		(22)	T220A
72007255	00341	DF	SCANNINHG SW B	23		T330A
72007522	00342	DF	SCANNING SW B	24		T220A
72010477	00614	DH	FUNCTION SW B	25		
72007271	00345	DJ	TRIGGER SW B		(25)	
72007549	00347	EE	SCAN CONTROLLER	26		
72009045	00491	EF	LOGIC BOARD	27		
72010469	00613	EH	AFD I/O B	30		
72009142	00502	EJ	LENS DRIVE B	33		
72009282	00492	EK	SCANNING BOARD	35		
72009151	00503	EL	VIDEO CONTROL B	39		
72009169	00504	EM	ACC LINK B	40		
72010507	00621	EN	8-BIT CPU B	43		
72008065	00355	FF	EVAC CONTLROLLER	44		
72008073	00356	FF	EVAC CONTROLLER	47		
72001664	00027	FH	INTERRUPT1 B		(45)	
72001672	00028	FJ	INTERRUPT2 B		(45)	
72001681	00029	FK	EVAC CONTROL B		(45)	
72001699	00041	FL	MOTOR DRIVE B	48		
72004345	00172	FM	EVAC PS B	49		
72004353	00173	FN	HEATING PS B		(46)	
72007565	00358	HH	DEF-COIL DRIVER	50		
72007379	00359	HJ	EOS DRIVE B	51		
72007387	00360	HK	CRT DRIVE B	52		
72007573	00362	JJ	LED DISPLAY	53		
72007409	00363	JK	ACC/MAG DISP B		(56)	
72007433	00367	JL	PHOTO DATA IO B	54		
72007425	00365	JM	LED DRIVE B	56		
72007417	00364	JN	PHOTO DATA SW B		(55)	
72007441	00366	JP	EVAC SW B	57		
72007450	00368	KK	CRT DISPLAY	58		
72007468	00369	KL	CRT CONTROL B	59		
72007476	00370	LL	Checker	60		
72009266	00514	LM	METER B	61		
72009274	00515	LN	CHECK B	62		
72008049	00414	WW	本体配線			T220A
72008855	00482	WW	架台間ケーブル	63		T330A
72010752	00583	WW	本体配線			T330A
72010710	00632	WX	AFD INTERCONNECT	65		
72010761	00584	WY	共通配線			

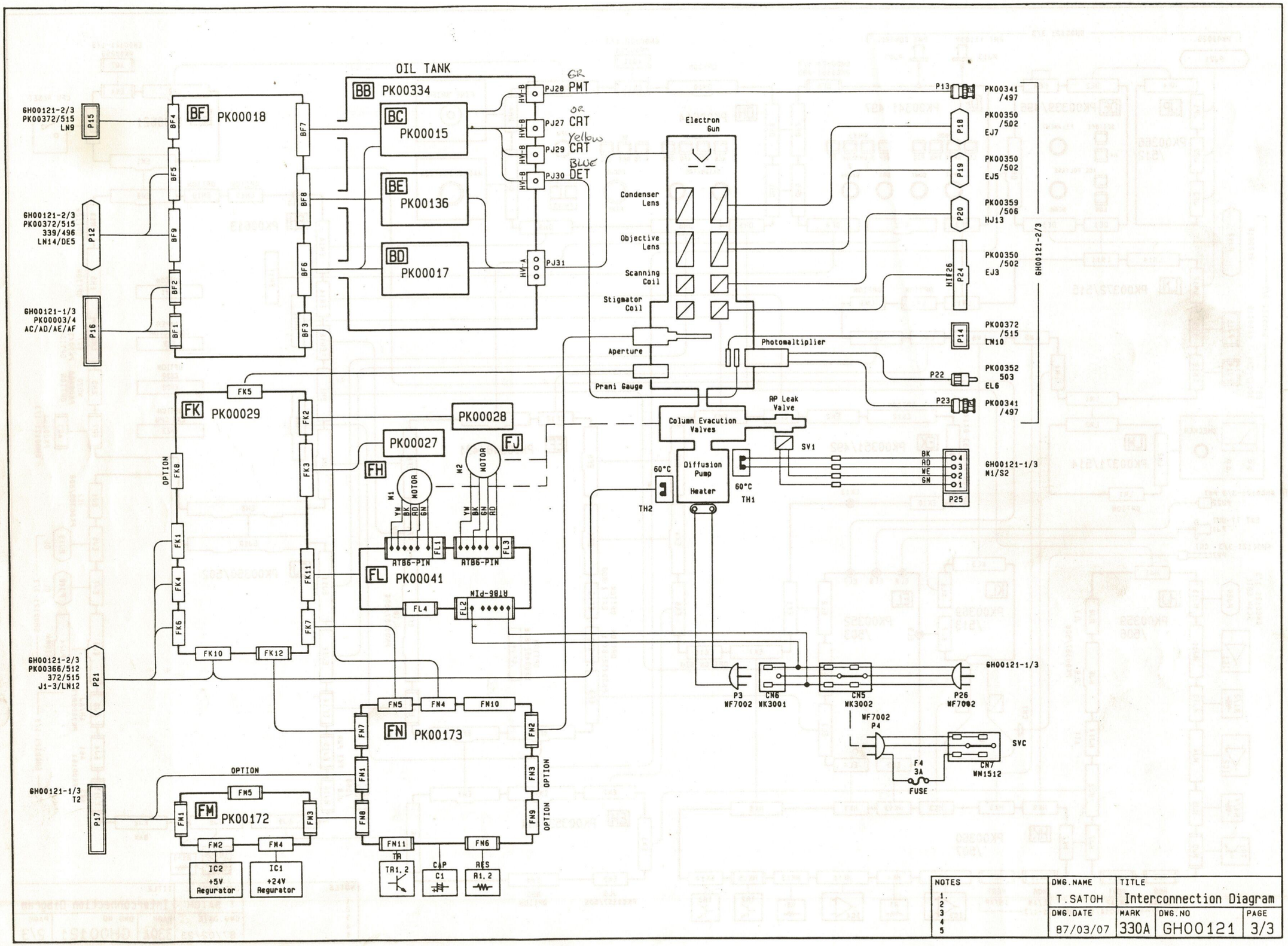
P/N	No.	MARK	DRAWING NAME	PAGE		
	GH00121		INTERCONNECTION	1		T330A
	GH00122		INTERCONNECTION	4		T220A
72001419	00003	AC	+24V REGU B		(8)	
72001427	00004	AD	+15V REGU B		(8)	
72001451	00007	AH	+15V REGU B		(11)	
72001460	00008	AJ	-15V REGU B		(11)	
72001486	00010	AL	+24V REGU B		(9)	
72001494	00011	AM	+24V REGU B		(9)	
72001532	00015	BC	CRT-HT		(18)	
72001338	00017	BE	FILAMENT B		(18)	
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72001664	00027	FH	INTERRUPT1 B		(45)	
72001672	00028	FJ	INTERRUPT2 B		(45)	
72001681	00029	FK	EVAC CONTROL B		(45)	
72001699	00041	FL	MOTOR DRIVE B	48		
72004248	00136	BD	EOS-HT B		(18)	
72004221	00161	AB	RECTIFIER B		(10)	
72004345	00172	FM	EVAC PS B	49		
72004353	00173	FN	HEATING PS B		(46)	
72005449	00253	AQ	Connector Board		(11)	
72007212	00331	AA	LV POWER SUPPLY	7		T330A
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72008031	00334	BB	HV POWER SUPPLY	17		
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72007239	00337	DD	OP PANEL	20		T330A
72007506	00338	DD	OP PANEL	21		T220A
72007247	00339	DE	ACC CONT SW B	22		T330A
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72007255	00341	DF	SCANNINHG SW B	23		T330A
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72007271	00345	DJ	TRIGGER SW B		(25)	
72007549	00347	EE	SCAN CONTROLLER	26		
72008065	00355	FF	EVAC CONTLROLLER	44		
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72007565	00358	HH	DEF-COIL DRIVER	50		
72007379	00359	HJ	EOS DRIVE B	51		
72007387	00360	HK	CRT DRIVE B	52		
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72007409	00363	JK	ACC/MAG DISP B		(56)	
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72007450	00368	KK	CRT DISPLAY	58		
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72008855	00482	WW	架台間ケーブル	63		T330A
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72010752	00583	WW	本体配線			T330A
72010761	00584	WY	共通配線			
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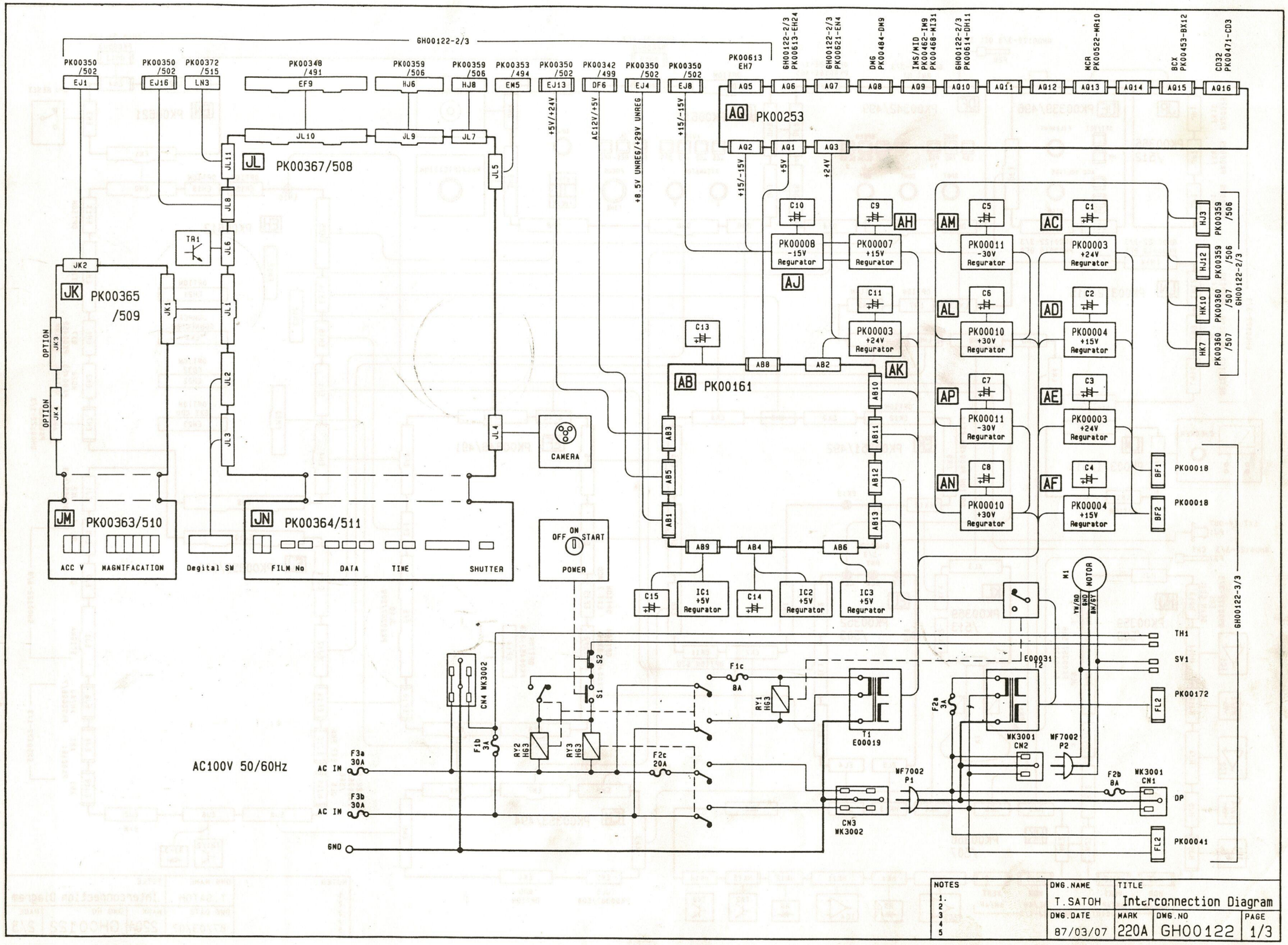


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	DWG.DATE	MARK	DWG.NO		PAGE
	87/03/07	330A	GH00121		1/3

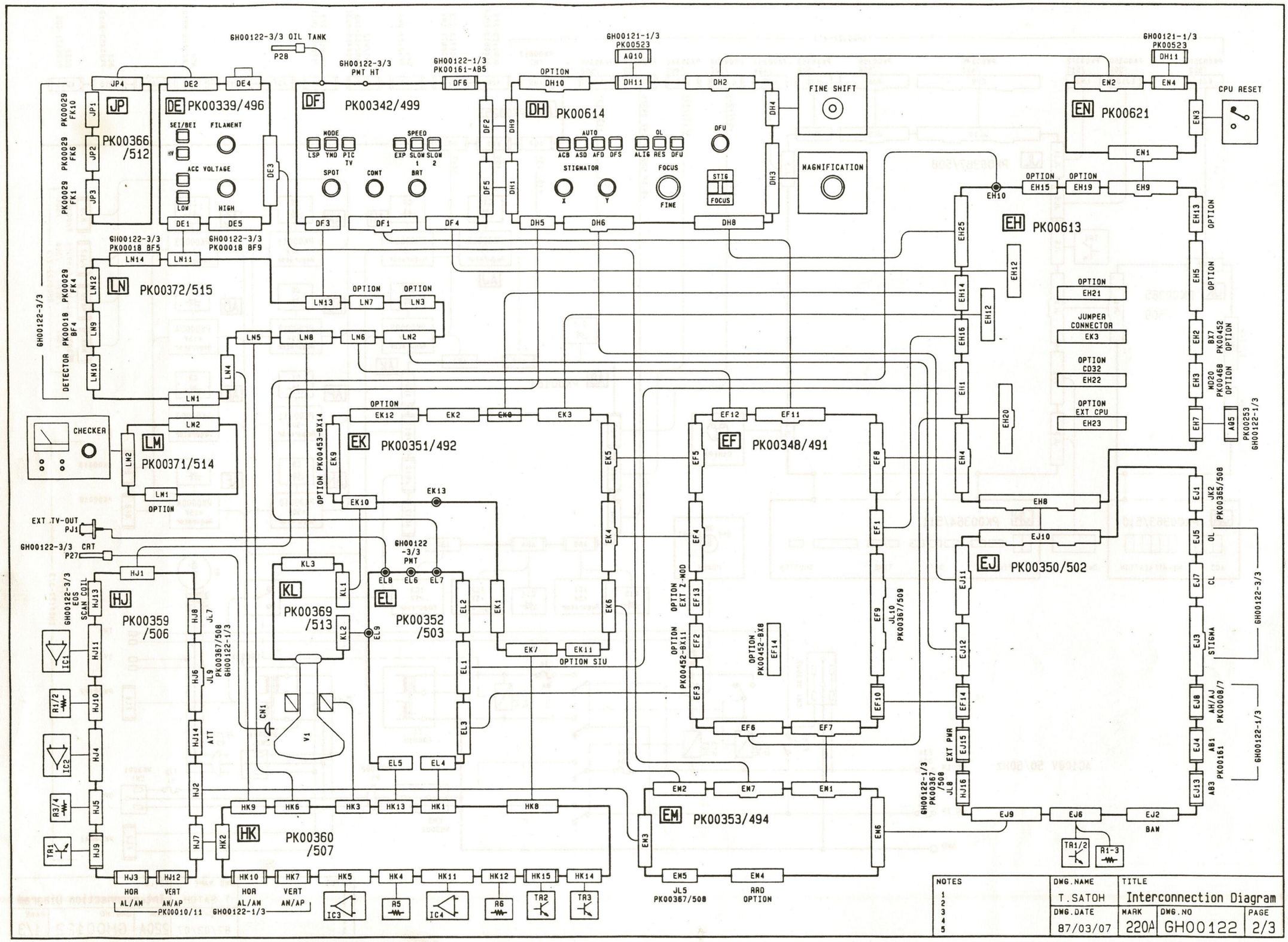


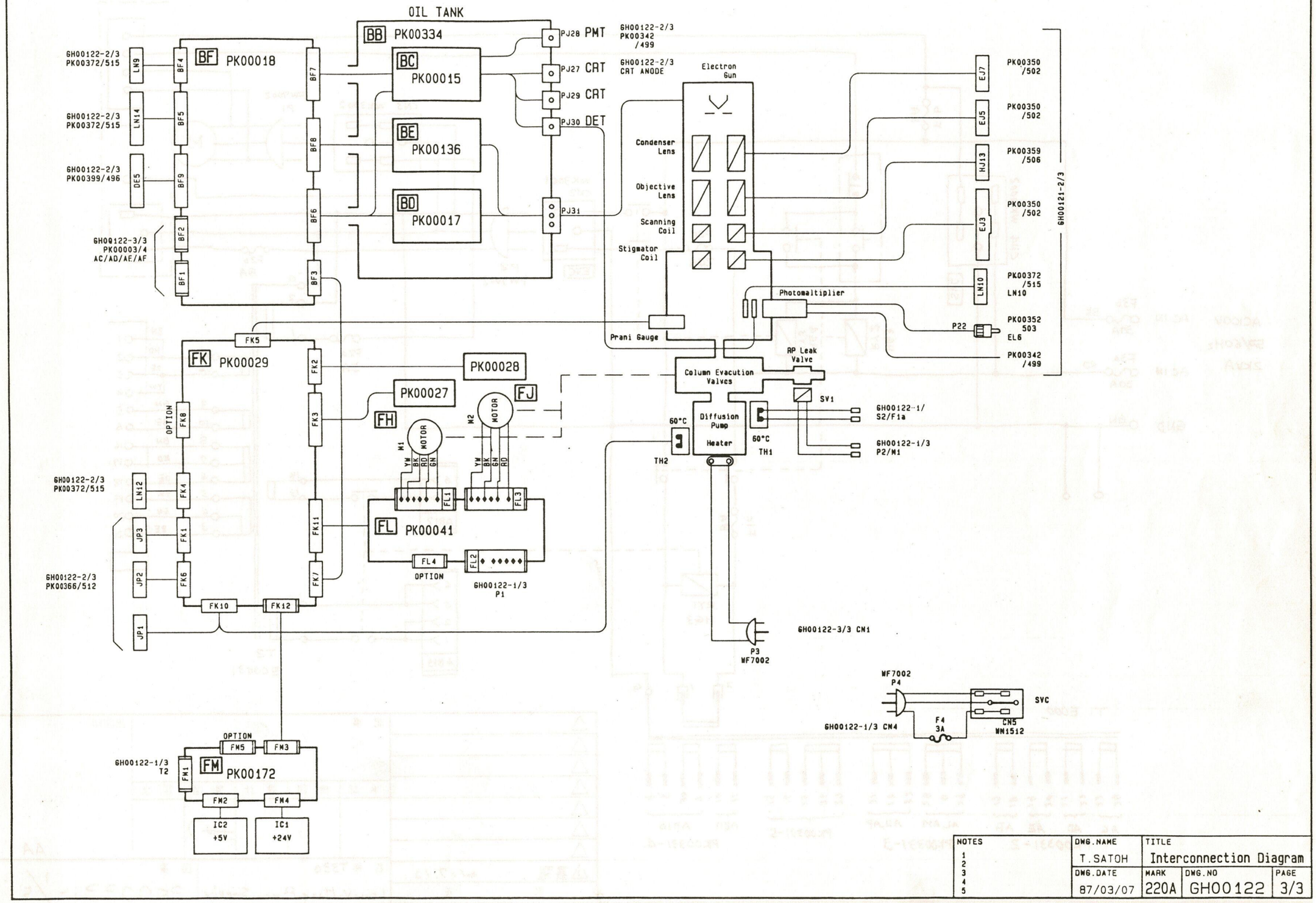
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1 2 3 4 5	T.SATOH	Interconnection Diagram		
	DWG.DATE	MARK	DWG.NO	PAGE
	87/02/23	330A	GH00121	2/3


OIL TANK
BB PK00334
BC PK00015
BE PK00136
BD PK00017
BF PK00018
FK PK00029
FH
FJ
FL PK00041
FM PK00172
FN PK00173
PK00028
PK00027
PJ28 PMT
PJ27 CRT
PJ29 CRT
PJ30 DET
PJ31
Electron Gun
Condenser Lens
Objective Lens
Scanning Coil
Stigmator Coil
Aperture
Prani Gauge
Photomaltiplier
AP Leak Valve
Column Evacution Valves
Diffusion Pump Heater
60°C
TH1
TH2
SV1
MOTOR
M1
M2
AT86-PIN
OPTION
GH00121-2/3 PK00372/515 LN9
GH00121-2/3 PK00372/515 339/496 LN14/DE5
GH00121-1/3 PK00003/4 AC/AD/AE/AF
GH00121-2/3 PK00366/512 372/515 J1-3/LN12
GH00121-1/3 T2
GH00121-1/3 M1/S2
GH00121-2/3
GH00121-1/3
P13 PK00341 /497
P18 PK00350 /502 EJ7
P19 PK00350 /502 EJ5
P20 PK00359 /506 HJ13
P24 PK00350 /502 EJ3
P14 PK00372 /515 LN10
P22 PK00352 503 EL6
P23 PK00341 /497
P25
P3 WF7002
CN6 WK3001
CN5 WK3002
P26 WF7002
WF7002 P4
CN7 WN1512
SVC
F4 3A FUSE
IC2 +5V Regurator
IC1 +24V Regurator
TR1,2
C1
R1,2
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DWG.DATE 87/03/07
MARK 330A
DWG.NO GH00121
PAGE 3/3

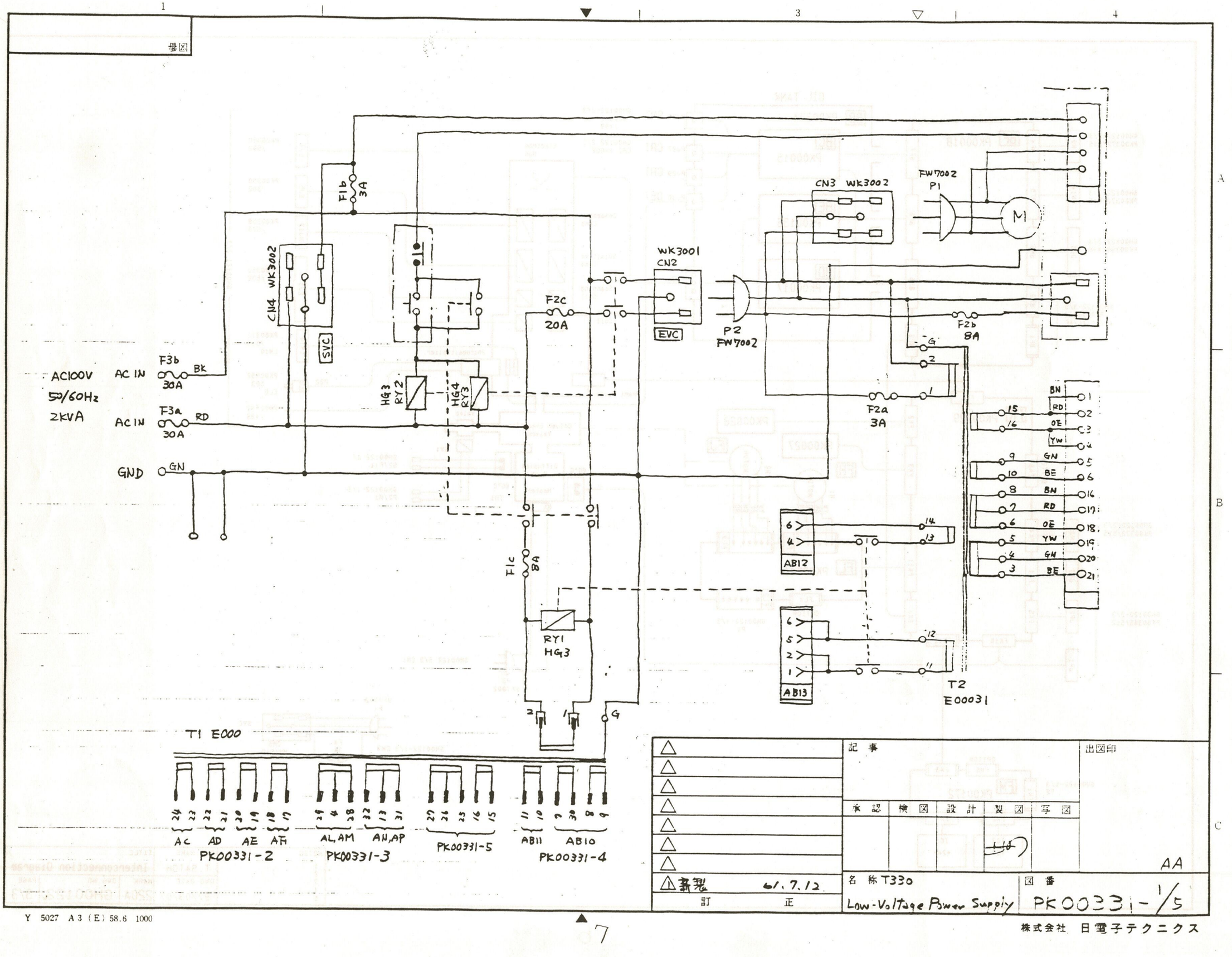


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2	DWG.DATE	MARK	DWG.NO	PAGE	
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4					
5					


GH00122-3/3 OIL TANK
P28
GH00122-3/3 PMT HT
GH00122-1/3 PK00161-AB5
GH00121-1/3 PK00523
AQ10
GH00121-1/3 PK00523
DH11
JP
PK00366 /512
DE PK00339/496
DF PK00342/499
DH PK00614
EN PK00621
EH PK00613
LN PK00372/515
LM PK00371/514
EK PK00351/492
EF PK00348/491
EJ PK00350/502
HJ PK00359 /506
KL PK00369 /513
EL PK00352 /503
HK PK00360 /507
EM PK00353/494
FINE SHIFT
MAGNIFICATION
CPU RESET
CHECKER
EXT TV-OUT PJ1
GH00122-3/3 CRT P27
GH00122-3/3 PK00018 BF5
GH00122-3/3 PK00018 BF9
OPTION
JUMPER CONNECTOR EK3
OPTION CD32 EH22
OPTION EXT CPU EH23
OPTION EH21
OPTION SIU
OPTION PK00452-BX11
OPTION PK00452-BX14
OPTION EXT Z-MOD
OPTION PK00452-BX8
EXT PWR
BAM
GH00122-3/3 EOS SCAN COIL
GH00122-3/3 DETECTOR PK00018 BF4
GH00122-3/3 PK00029 FK1
GH00122-3/3 PK00029 FK6
GH00122-3/3 PK00029 FK10
GH00122-3/3 PK00029 FK4
GH00122-1/3 PK00253
GH00122-1/3 PK00367/508
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GH00122-1/3 PK00365/508
GH00122-1/3 PK00008/7
GH00122-1/3 PK00161
GH00122-3/3 PK00010/11
GH00122-1/3
GH00122-3/3
GH00122 -3/3 PMT
PK00452 OPTION
PK00468 OPTION
PK00367/508
PK00367/509
PK00365/508
PK00008/7
PK00161
PK00253
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PK00468
PK00010/11
PK00367/508
PK00367 /508
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PK00452
PK00468
PK00008/7
PK00161
PK00365/508
PK00367/509
PK00367/508
PK00010/11
PK00367/



NOTES	DWG.NAME	TITLE			
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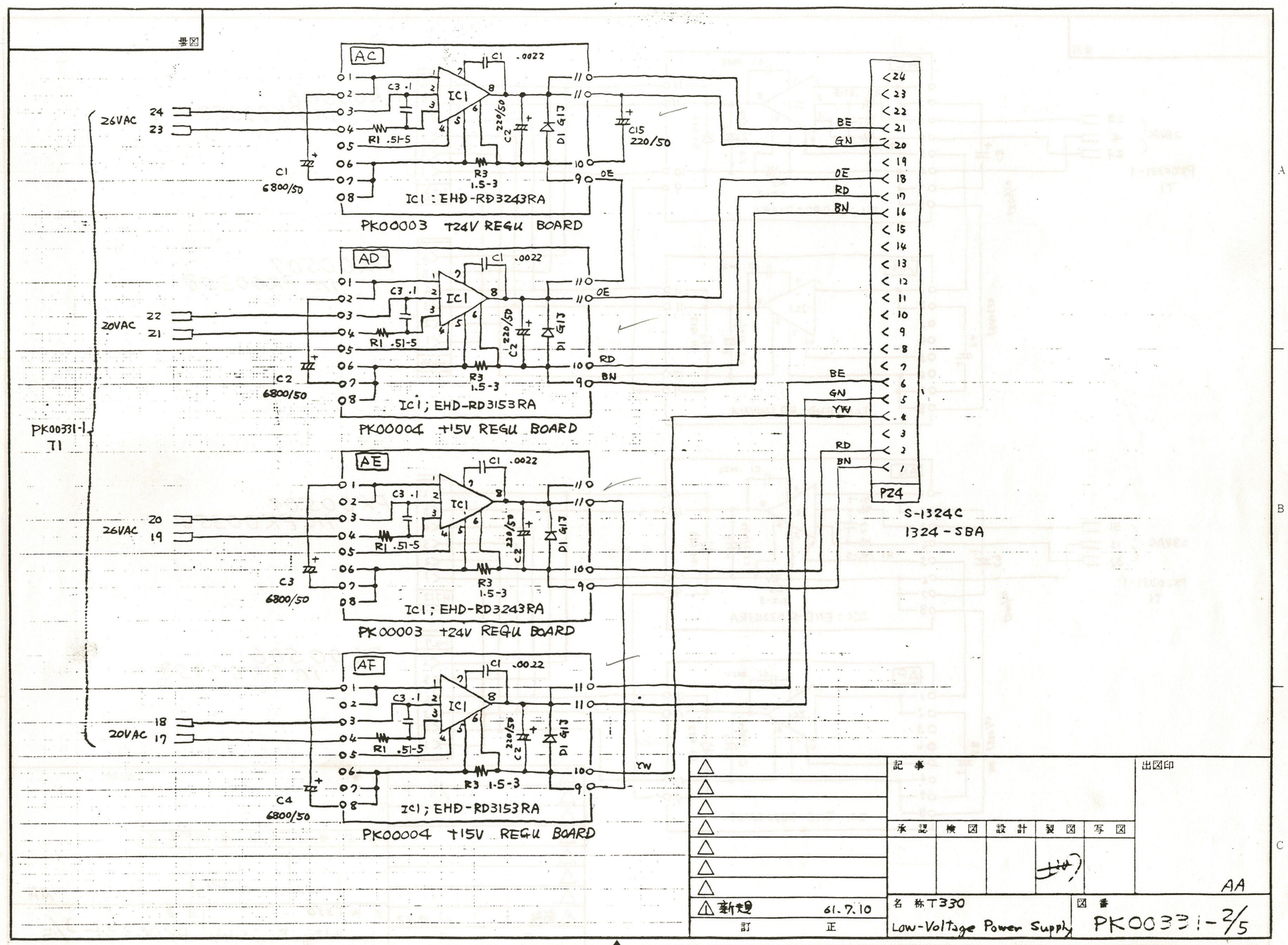
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⚠新製	61.7.12	記事				出図印
訂	正	承認	検図	設計	製図	写図
						AA

名称 T330
Low-Voltage Power Supply

図番 PK00331-1/5

Y 5027 A3 (E) 58.6 1000

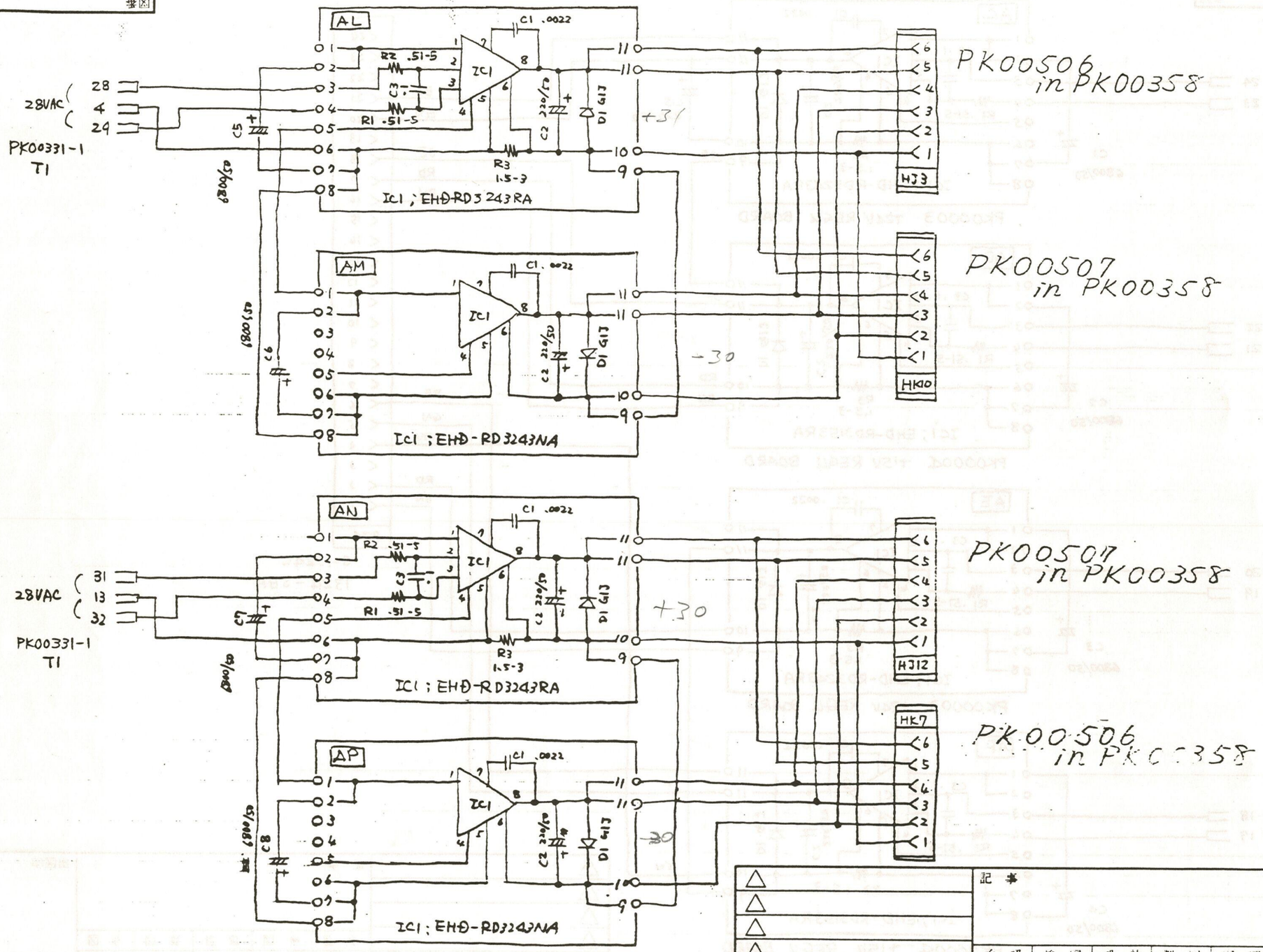
株式会社 日電子テクニクス



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⚠ 新規	61.7.10	名称 T330			図番 PK00331-2/5	
訂	正	Low-Voltage Power Supply				

Y 5027 A-3 (E) 58.6 1000

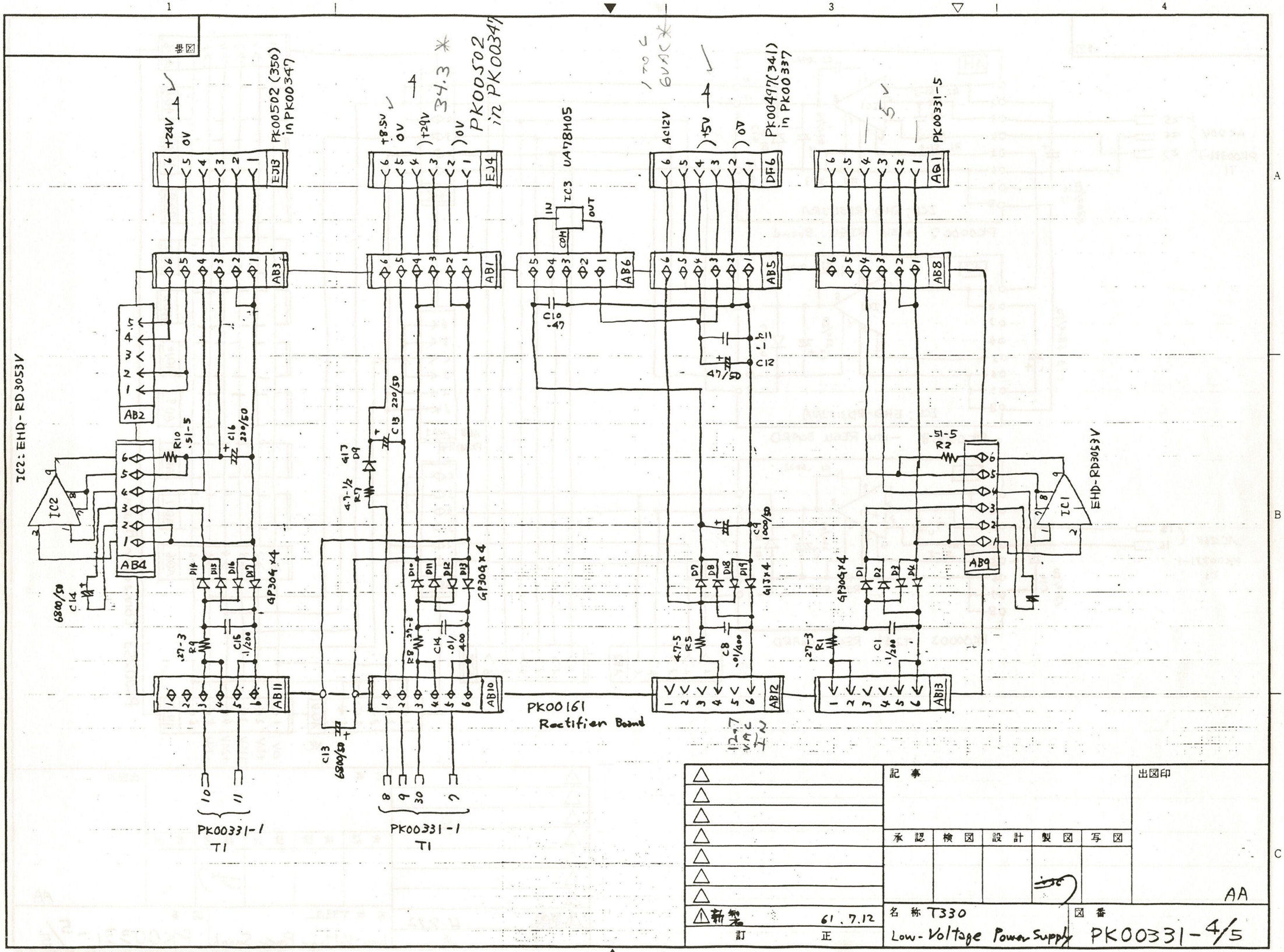
株式会社 日電子テクニクス



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名称	図番
T330 Low-Voltage Power Supply	PK00331-3/5

訂正 新製 61.7.12



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⚠新製	61.7.12					
訂	正					

記事

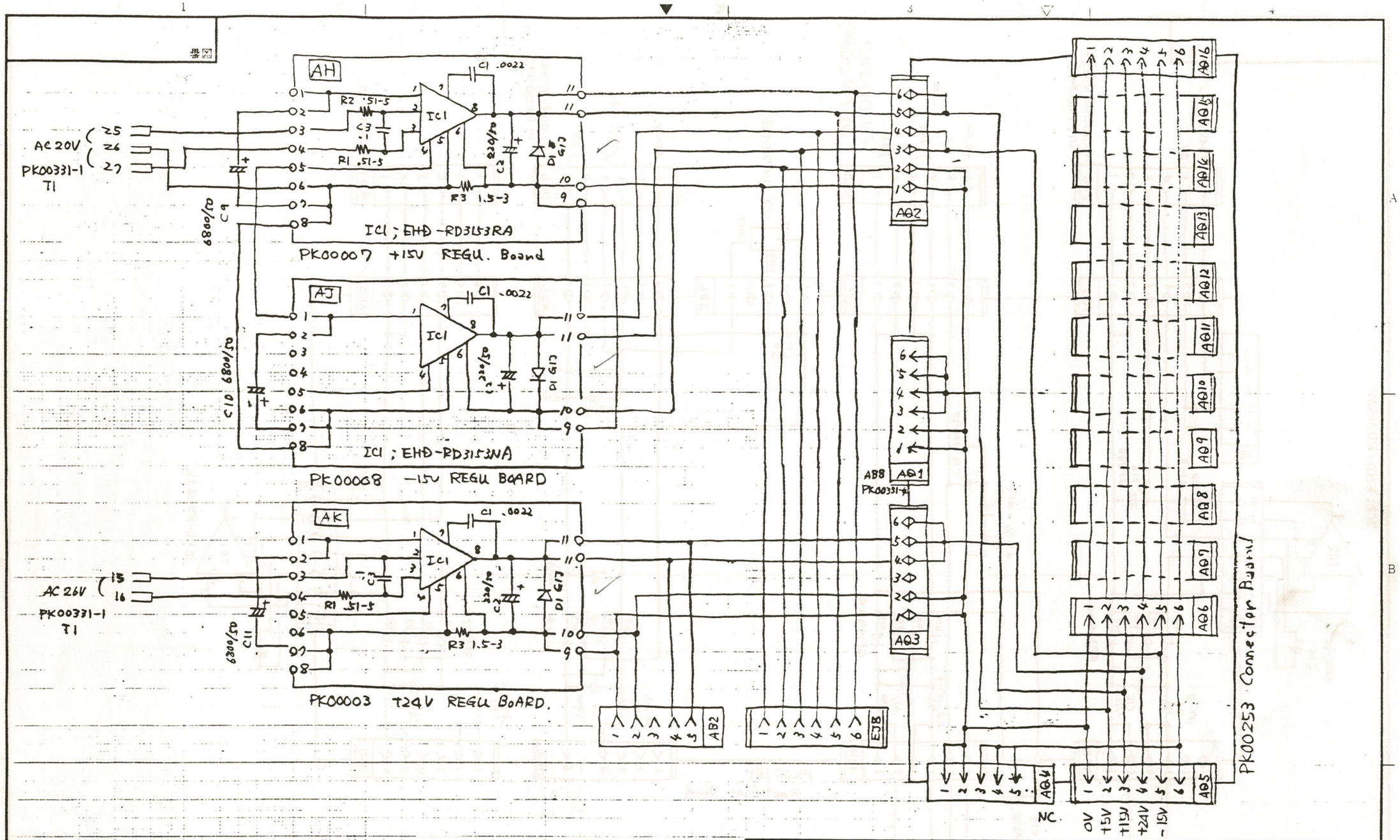
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承認	検図	設計	製図	写図

名称 T330 Low-Voltage Power Supply

図番 PK00331-4/5

株式会社 日電子テクニクス



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記事

出図印

承認	検図	設計	製図	写図

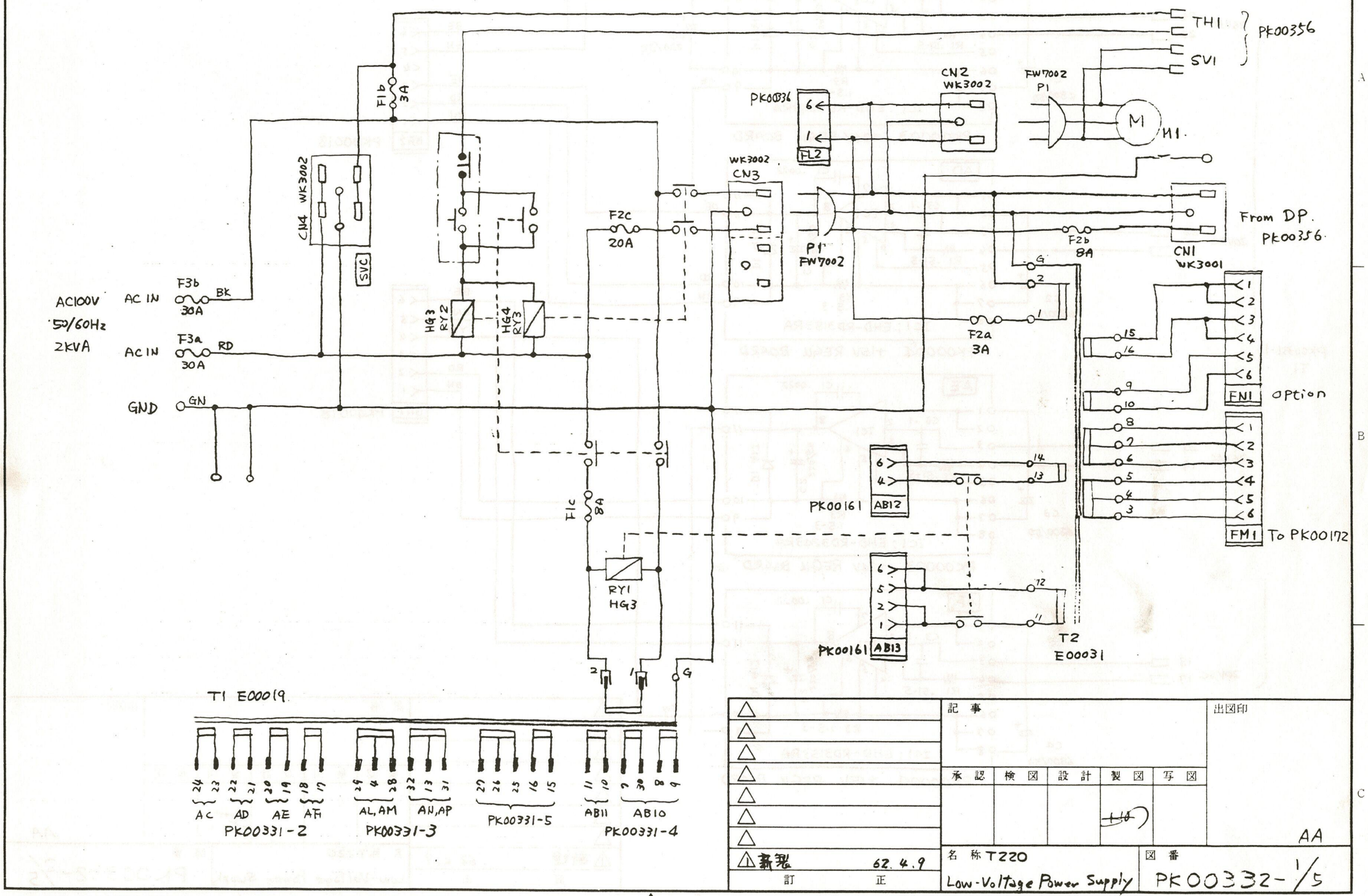
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名称 T33a
Low-Voltage Power Supply

図番 PK00331-5/5

株式会社 日電子テクニクス

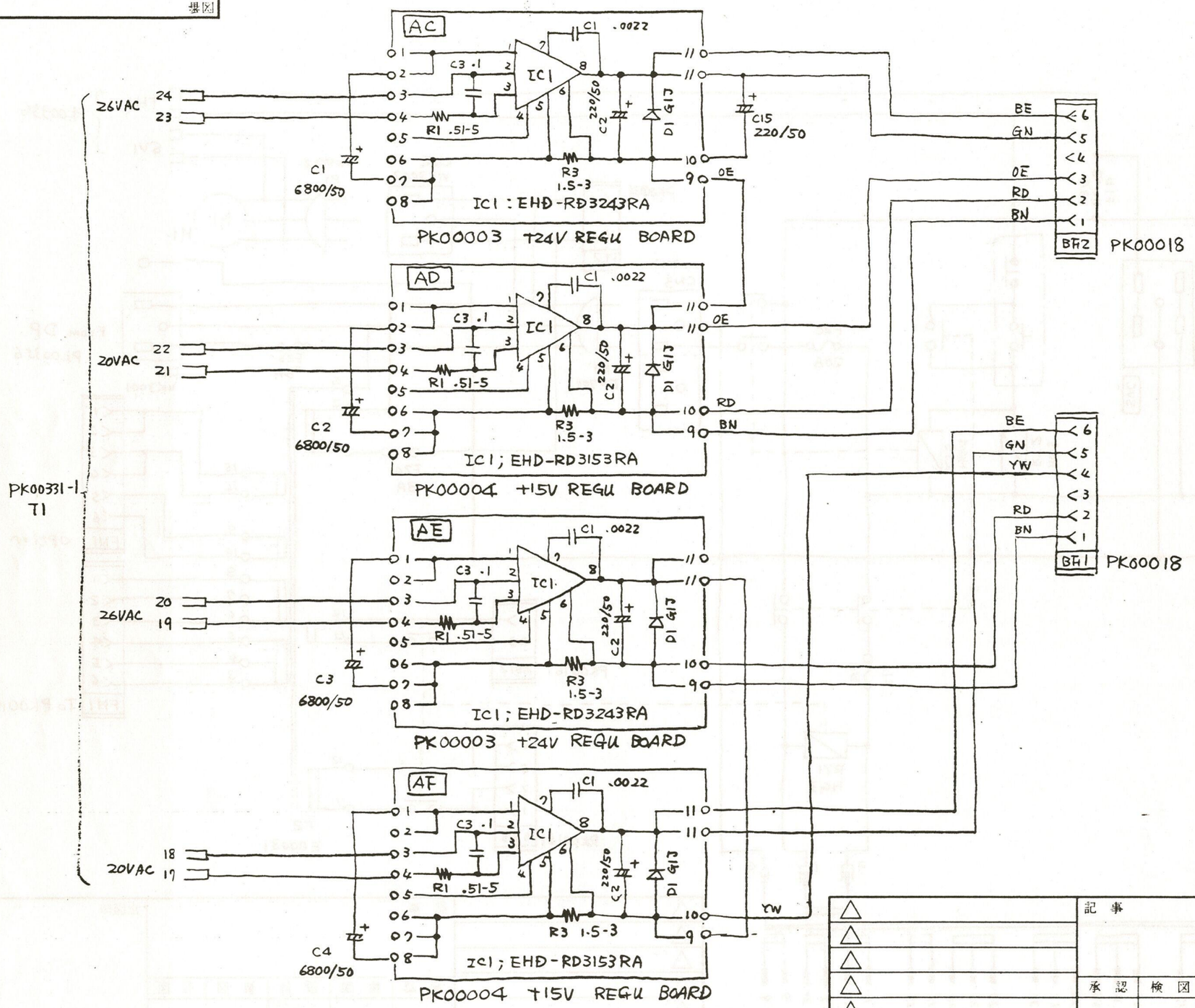
Y 5027 A3 (E) 58.6 1000



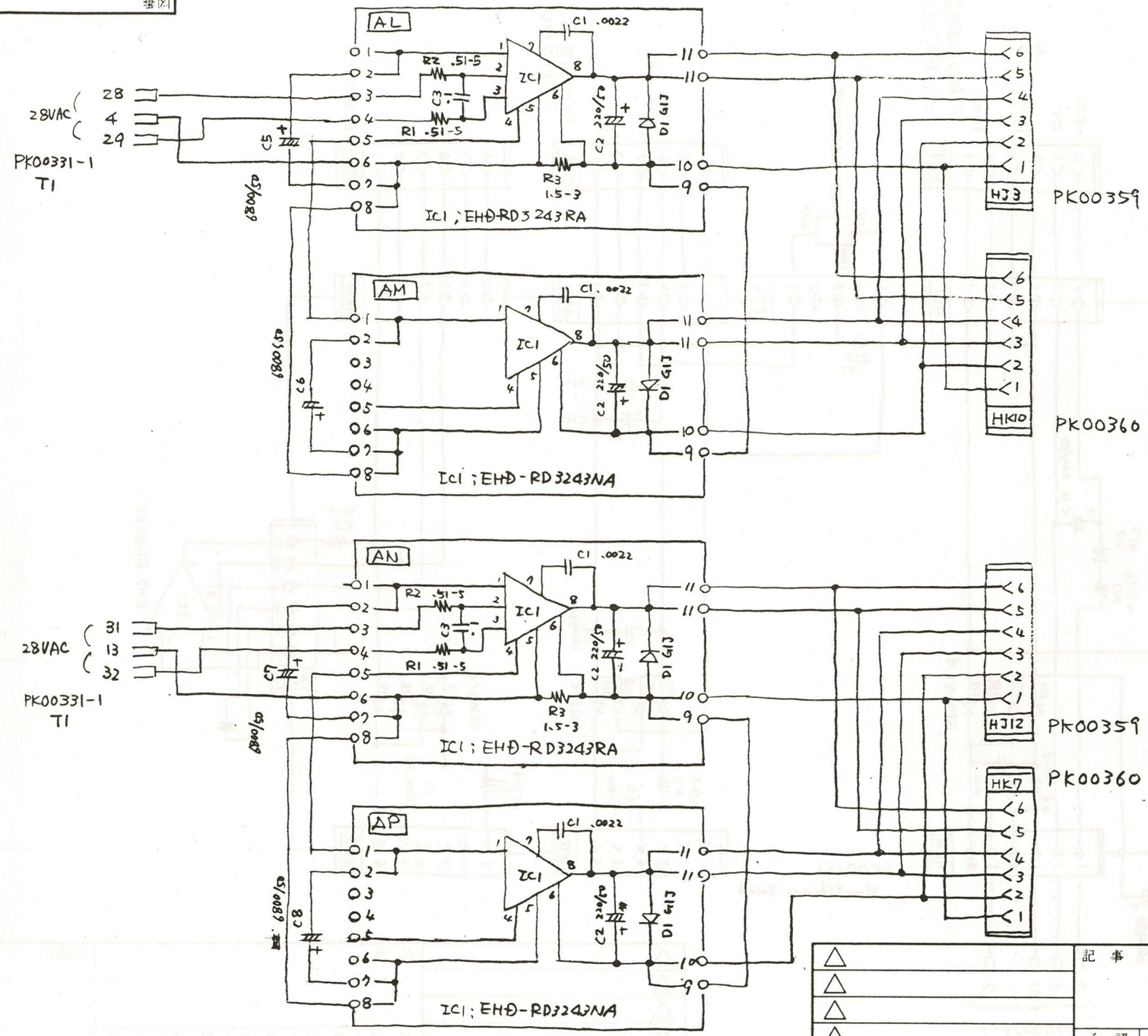
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⚠新製 62.4.9						
訂正						

名称 T220 Low-Voltage Power Supply

図番 PK00332-1/5



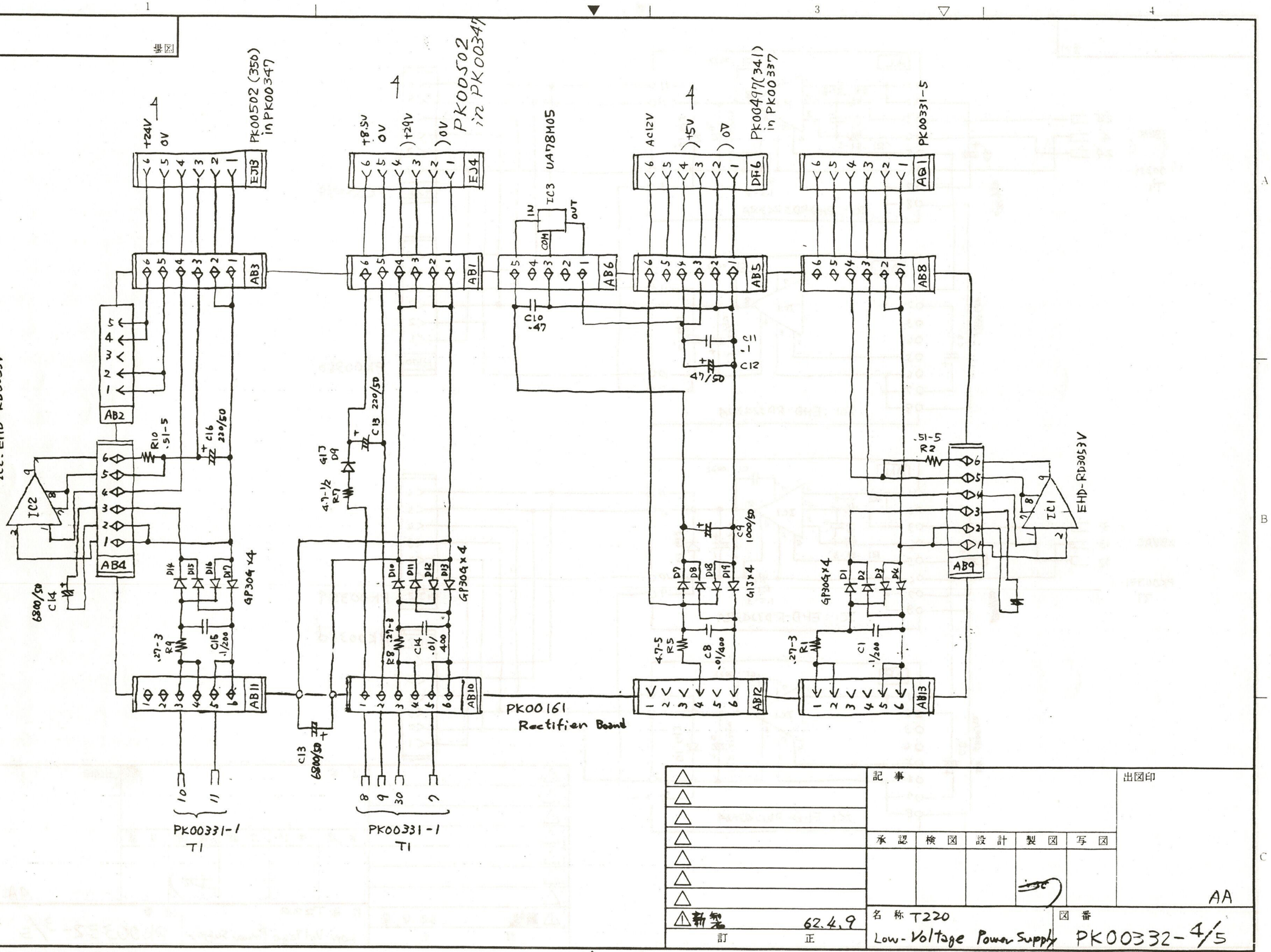
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訂	正					

Y 5027 A3 (E) 58.6 1000

株式会社 日電子テクニクス



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訂	正					

記事

出図印

承認	検図	設計	製図	写図

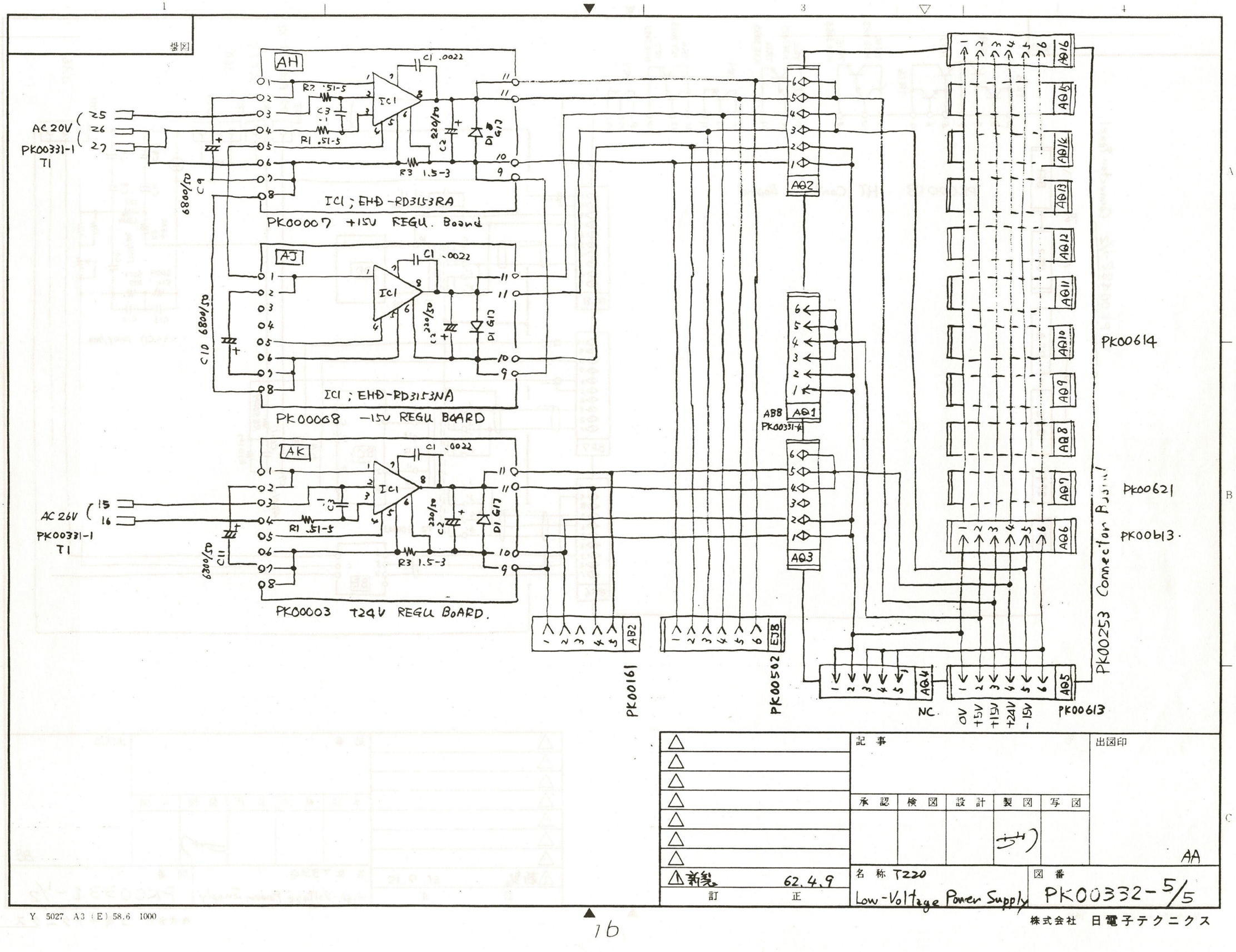
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名称 T220
Low-Voltage Power Supply

図番 PK00332-4/5

Y 5027 A3 (E) 58.6 1000

株式会社 日電子テクニクス



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⚠新製	62.4.9					
訂 正		承認	検図	設計	製図	写図
					5/7	

記事

出図印 AA

名称 T220 Low-Voltage Power Supply

図番 PK00332-5/5

株式会社 日電子テクニクス

PK00482-1/2 Connector Panel

PK00018 HT Control Board

TR18 TR19 TR17 TR16 TR14 MJE3055 TR15 MJE3055 TR11 MJE3055 TR12 MJE3055 TR9 TR6 MJE3055 TR7 MJE3055 TR3

P6 BF1 BF2 BF9 P2 BF5 P5 BF4 BF3

BF8 BF7 BF6

C1 .1 R1 100K

T1 E00003 BD

T2 E00003 BC BE

PMT P3 PK00482-1/2 CRT CRT DET GUN

ATT'S 368 336

C9 C11 C10 C8 R3 680K R2 680K 2200P/8K C4 R16 500M R15 500M C13 C12

C9~C13 1000P/30K

R8 500M R10 1M C6 .1 R9 680K C7 4700/2K

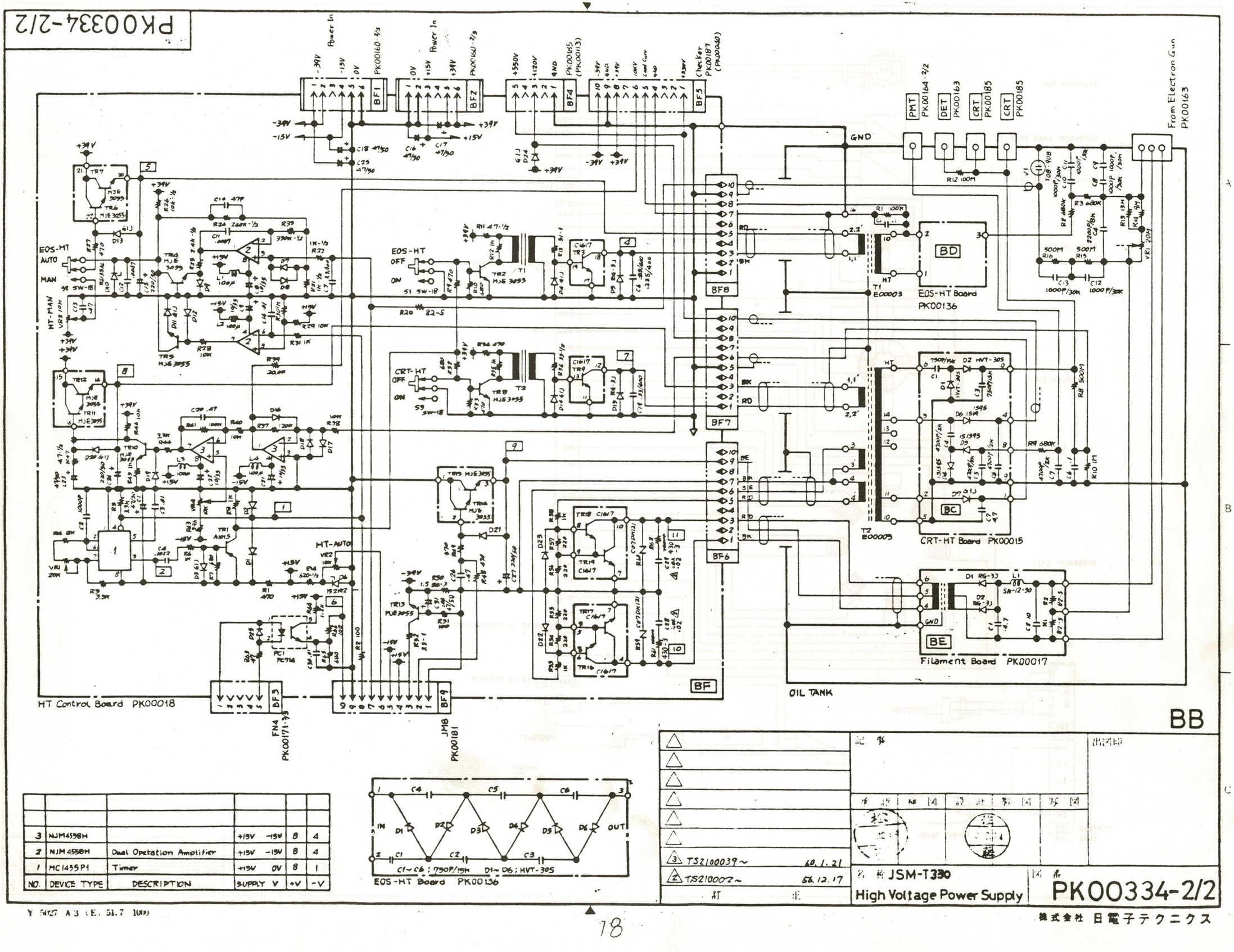
△		記事				出図印
△						
△						
△		承認	検図	設計	製図	写図
△						
△						
△						
⚠新製	61.7.15					
訂	正	名称 T330 High-Voltage Power Supply			図番 PK00334-1/2	

BE

Y 5027 A 3 (E) 58.6 1000

株式会社 日電子テクニクス

PK00334-2/2



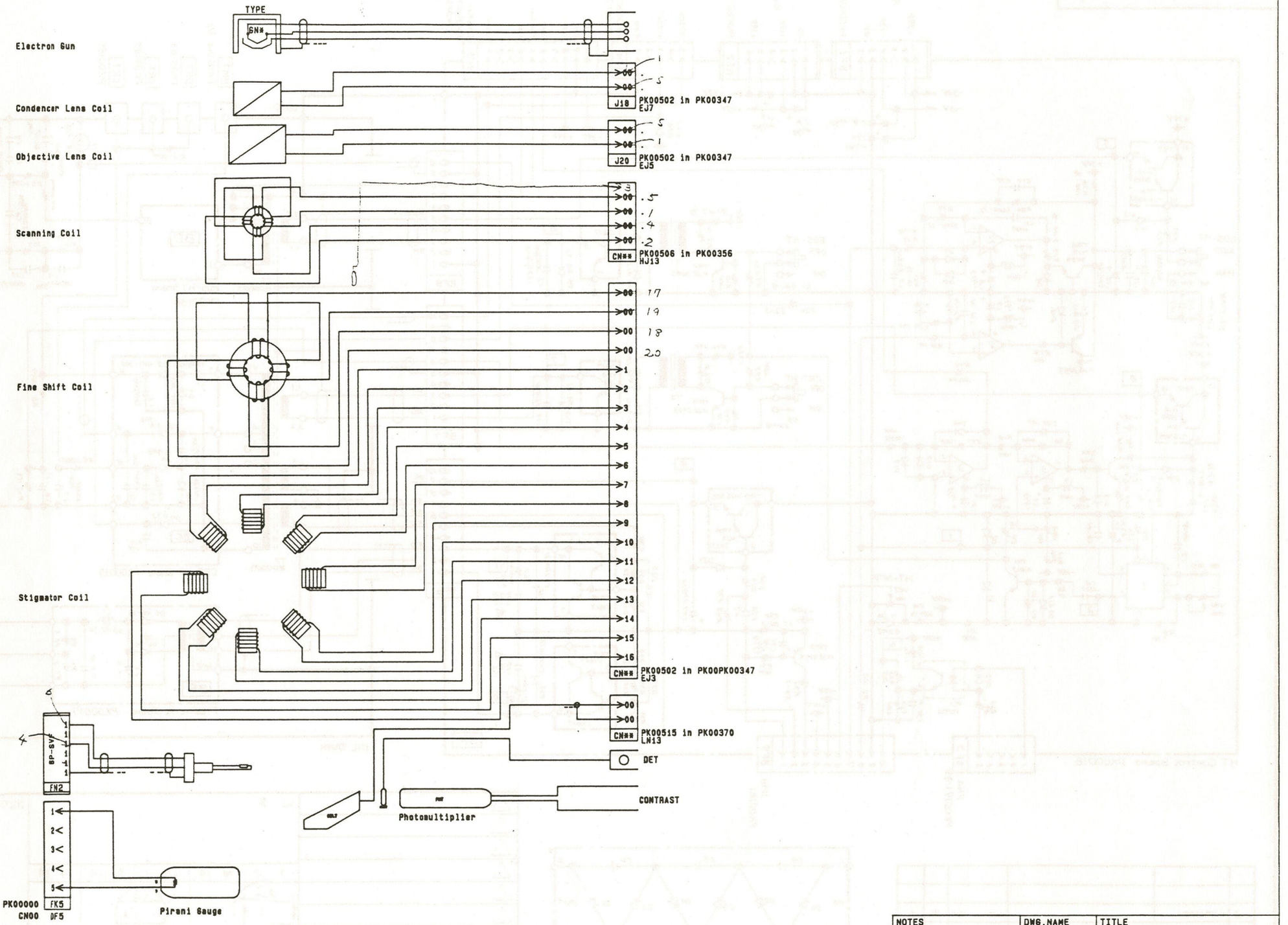
NO.	DEVICE TYPE	DESCRIPTION	SUPPLY V	+V	-V
3	NJM4558H		+15V −15V	8	4
2	NJM4558H	Dual Opetation Amplifier	+15V −15V	8	4
1	MC1455P1	Timer	+15V 0V	8	1

3	TS2100039~	60.1.21
2	TS2100002~	58.12.17

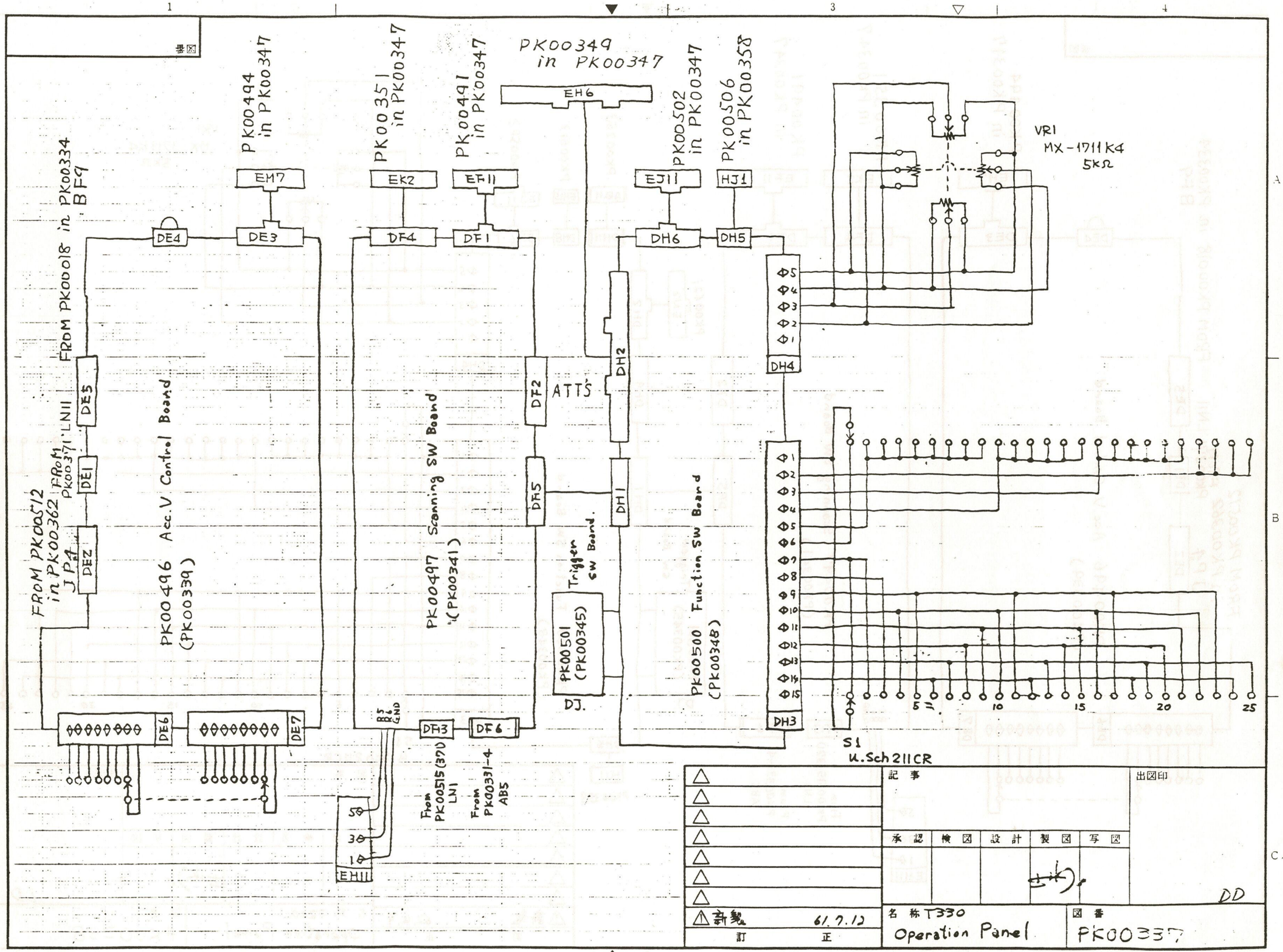
名称 JSM-T330 High Voltage Power Supply

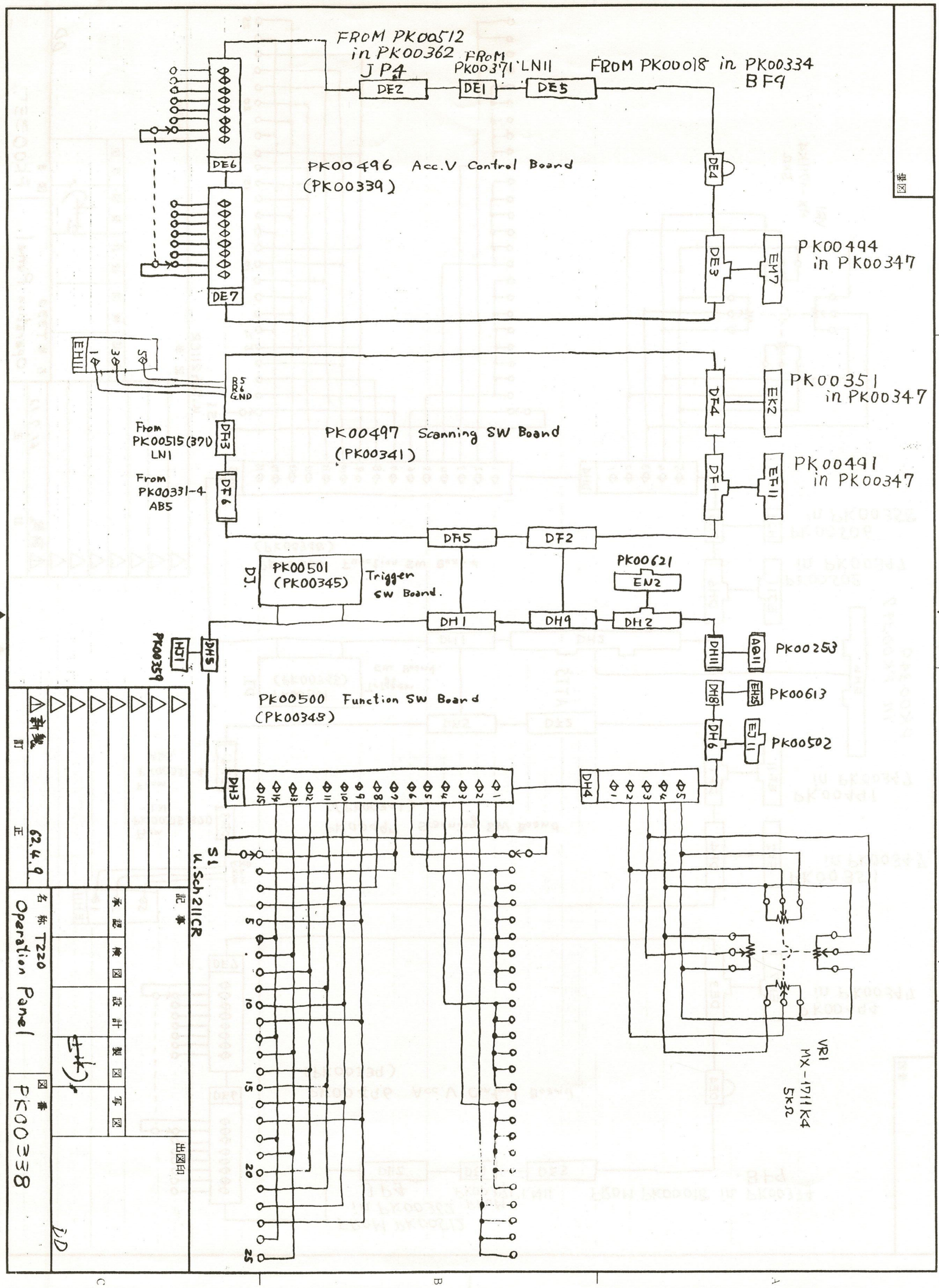
図番 PK00334-2/2

株式会社 日電子テクニクス



NOTES	DWG.NAME	TITLE		
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	DWG.DATE	MARK	DWG.NO	PAGE
	87/02/12	CC	PK00336	1/1

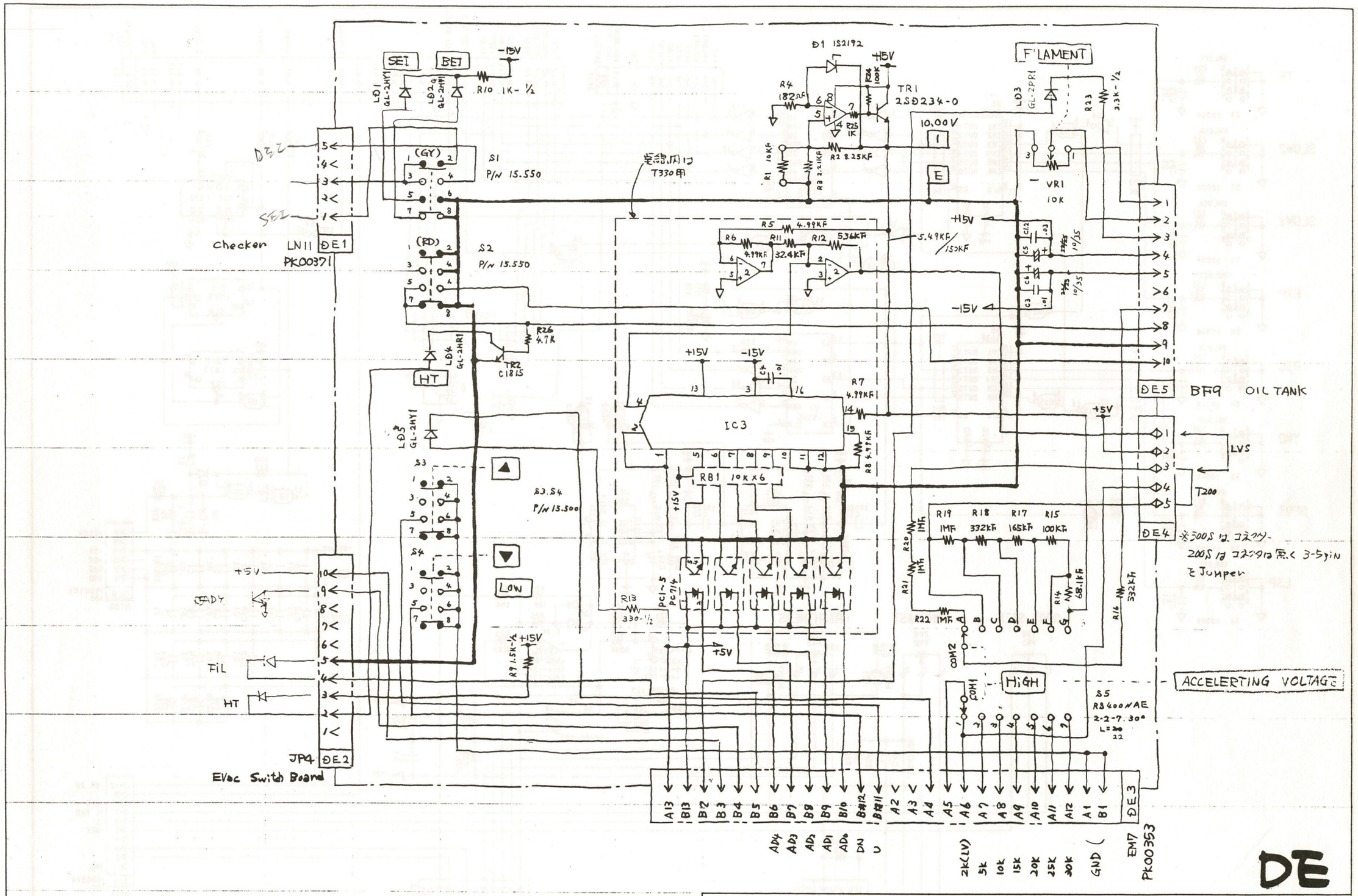

PK00494 in PK00347
PK00351 in PK00347
PK00491 in PK00347
PK00349 in PK00347
PK00502 in PK00347
PK00506 in PK00358
EM7
EK2
EF11
EH6
EJ11
HJ1
DE4
DE3
DF4
DF1
DH6
DH5
VR1
MX-1711K4
5kΩ
DH4
FROM PK00018 in PK00334 BF9
DE5
DE1
FROM PK00512 in PK00362 J P4
DE2
PK00496 Acc.V Control Board
(PK00339)
PK00497 Scanning SW Board
(PK00341)
DF2
ATT5
DH2
DF5
DH1
Trigger sw Board.
PK00501
(PK00345)
DJ.
PK00500 Function.SW Board
(PK00348)
DH3
S1
U.Sch211CR
DE6
DE7
DF3
DF6
RS
RG
GND
5
3
1
EH11
From PK00515(371) LN1
From PK00331-4 ABS
記事
出図印
承認
検図
設計
製図
写図
DD
△新製
61.7.12
訂正
名称 T330
Operation Panel
図番
PK00337
Y 5027 A3 (E) 58.6 1000
株式会社 日電子テクニクス



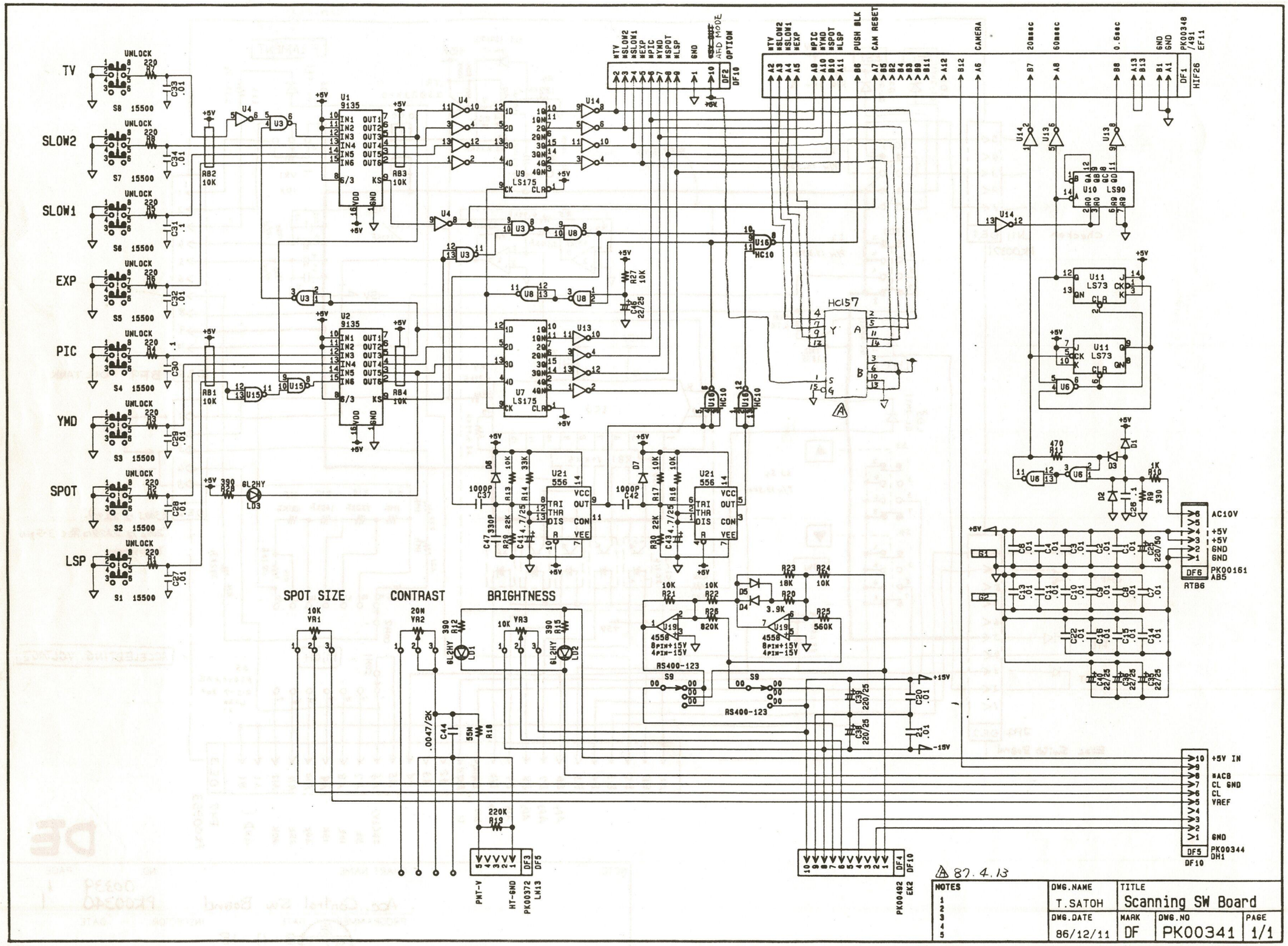
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	検図		
	設計		
	製図		
	写図	図番 PK00338	
△訂正	62.4.9.		

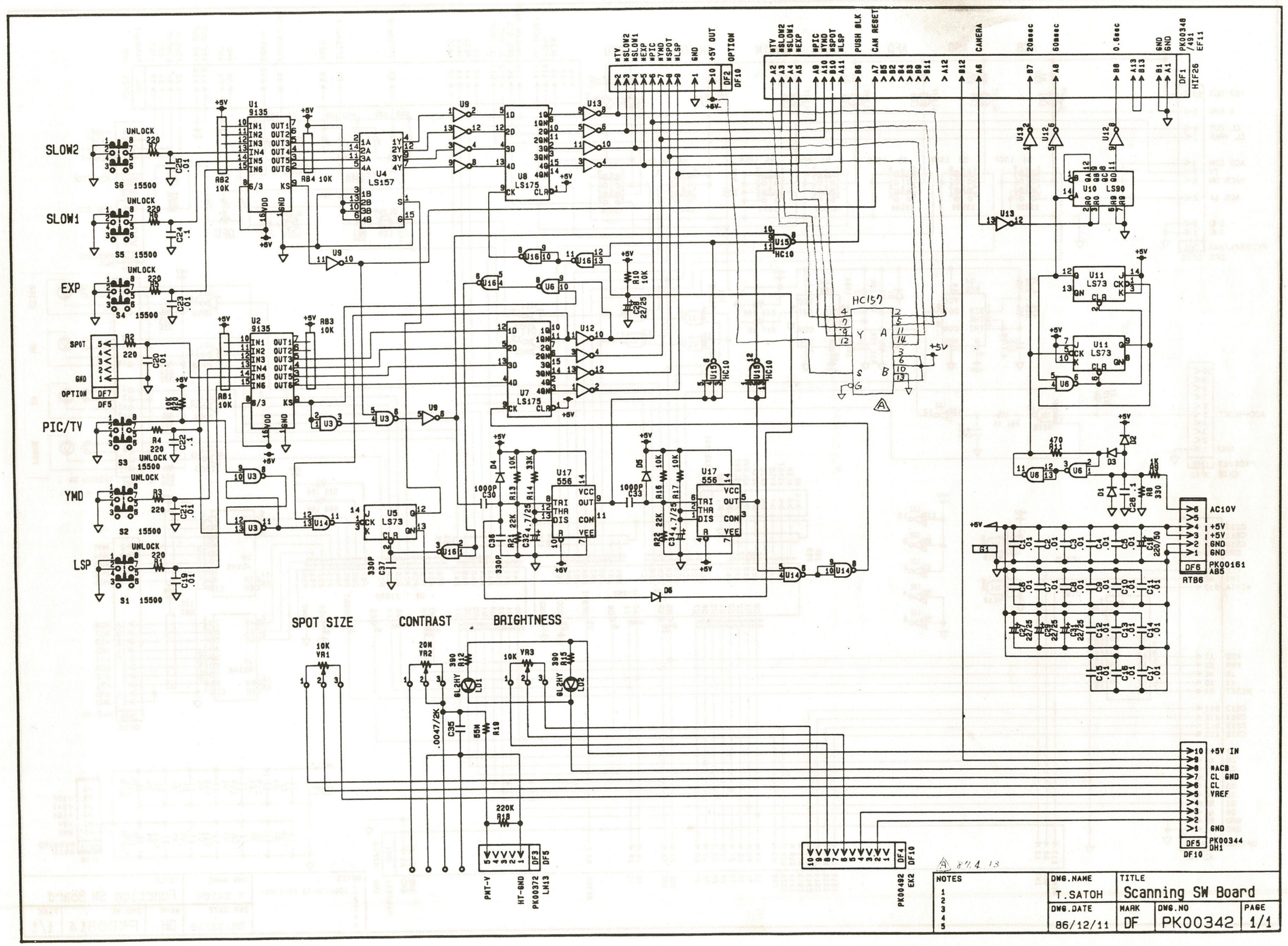
株式会社 日電子テクニクス

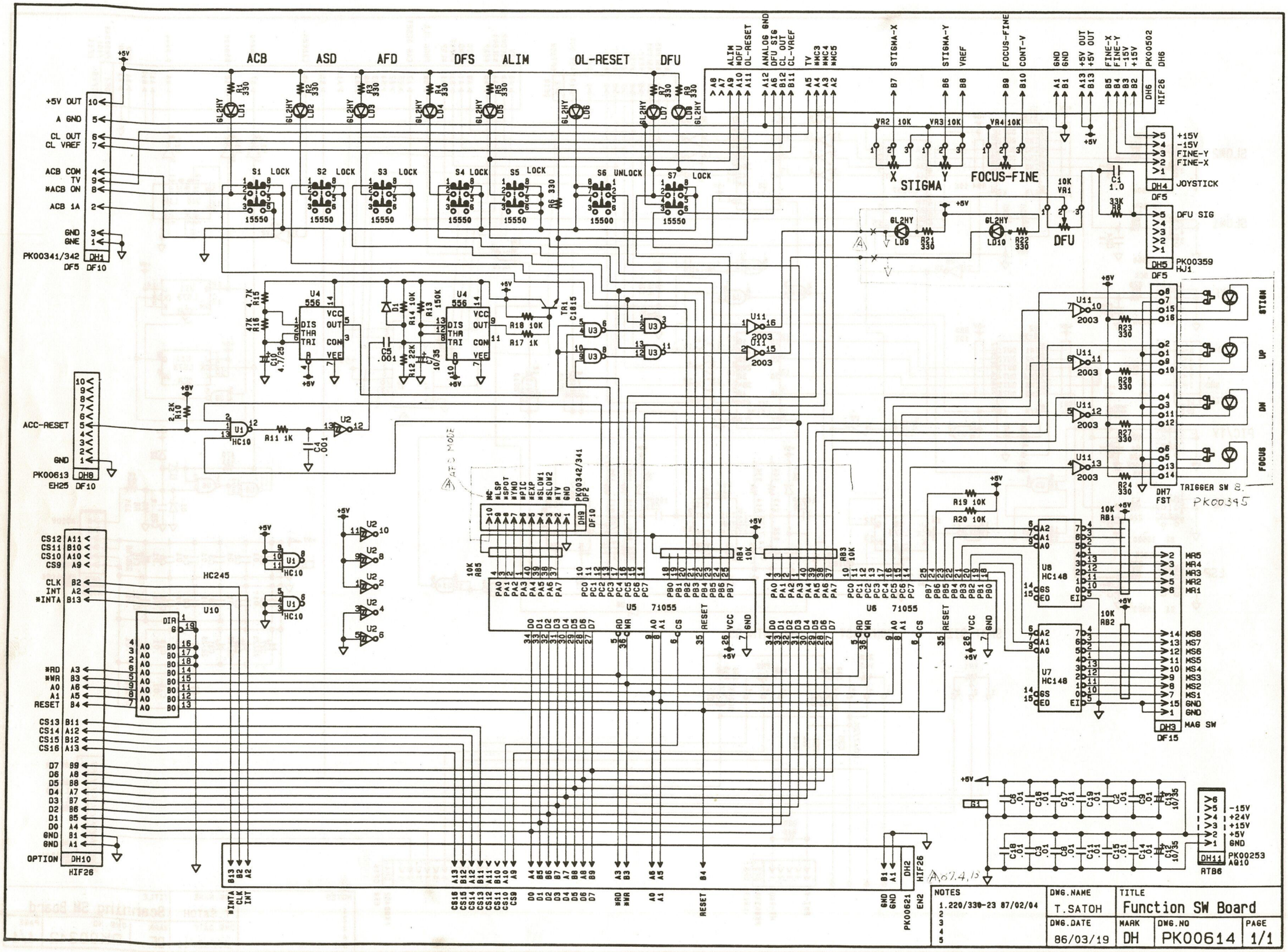
FLOWCHART-SHEET

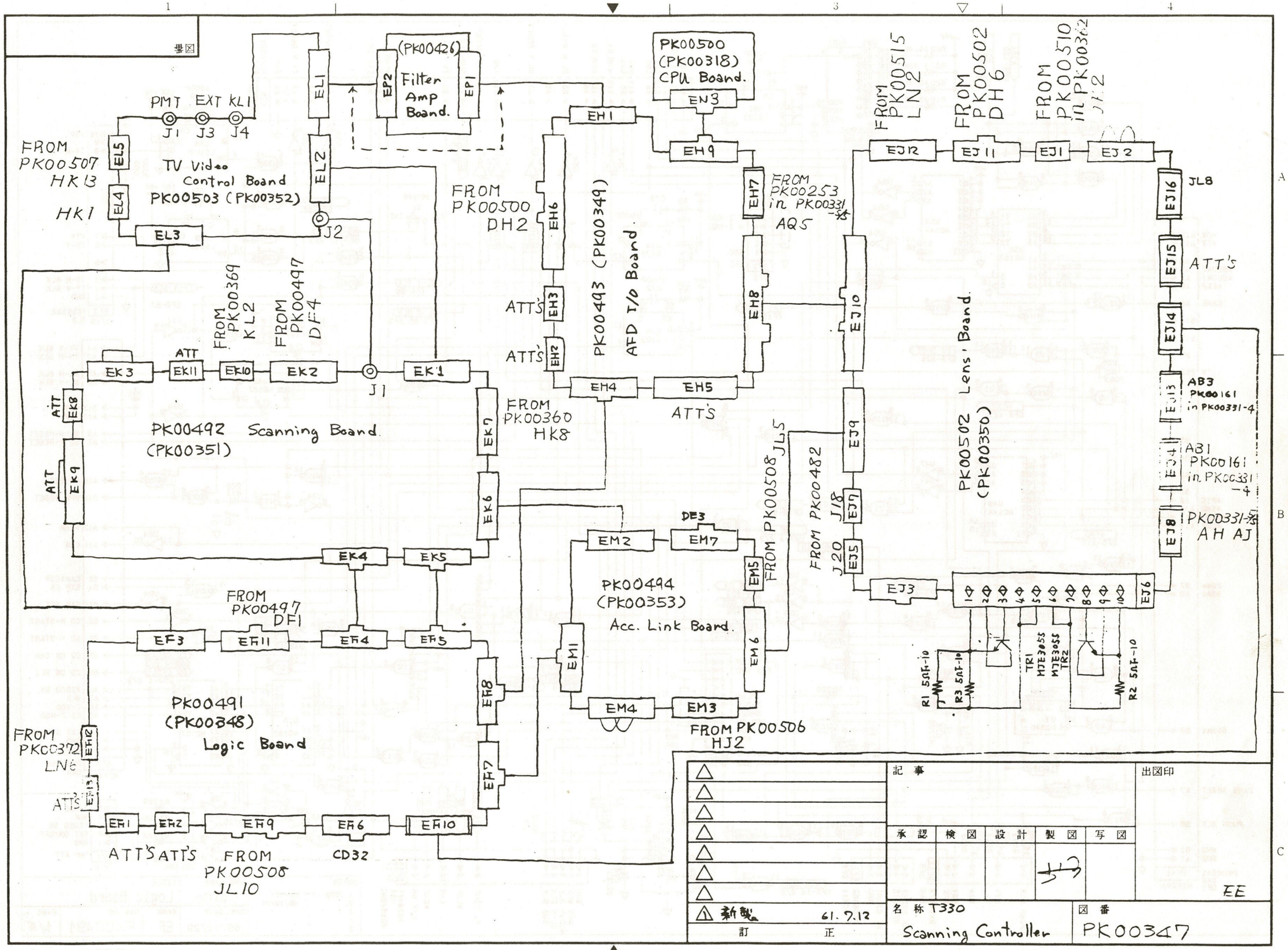


NOTE	CHART NAME	NO.	PAGE
	Acc. Control Sw Board	00339 PK00340	1/1
	PROGRAMMER 佐 59.2	DATE 58·11·18	INSPECTOR DATE


TV
SLOW2
SLOW1
EXP
PIC
YMD
SPOT
LSP
UNLOCK
S8 15500
S7 15500
S6 15500
S5 15500
S4 15500
S3 15500
S2 15500
S1 15500
U1 9135
U2 9135
U7 LS175
U9 LS175
U21 556
HC157
HC10
LS73
LS90
SPOT SIZE
CONTRAST
BRIGHTNESS
RS400-123
AHD MODE
OPTION
CAMERA
20msec
60msec
0.6sec
PUSH BLK
CAM RESET
AC10V
+5V IN
GND
PK00161 AB5
PK00344 DH1
PK00492 EK2
PK00372 LH13
87.4.13
T.SATOH
Scanning SW Board
86/12/11
DF
PK00341
1/1


SLOW2
SLOW1
EXP
SPOT
GND
OPTION
PIC/TV
YMD
LSP
UNLOCK
S6 15500
S5 15500
S4 15500
S3 15500
S2 15500
S1 15500
U1 9135
U2 9135
U4 LS157
U7 LS175
U8 LS175
U5 LS73
U17 556
U10 LS90
U11 LS73
HC157
HC10
SPOT SIZE
CONTRAST
BRIGHTNESS
10K VR1
20K VR2
10K VR3
PMT-V
HT-GND
PK00372 LH13
PK00492 EK2
PK00344 DH1
PK00161 AB5
HIF26
AC10V
+5V IN
#ACB
CL GND
CL
VREF
NOTES
DWG.NAME
T.SATOH
TITLE
Scanning SW Board
DWG.DATE
86/12/11
MARK
DF
DWG.NO
PK00342
PAGE
1/1


ACB
ASD
AFD
DFS
ALIM
OL-RESET
DFU
S1 LOCK
S2 LOCK
S3 LOCK
S4 LOCK
S5 LOCK
S6 UNLOCK
S7 LOCK
15550
15500
STIGMA-X
STIGMA-Y
VREF
FOCUS-FINE
CONT-V
STIGMA
FOCUS-FINE
DFU
JOYSTICK
DFU SIG
TRIGGER SW 8.
MAG SW
ACC-RESET
OPTION
HC245
HC10
2003
71055
HC148
PK00341/342
PK00359
PK00502
PK00613
PK00253
PK00621
PK00342/341
PK00395
Function SW Board
T.SATOH
86/03/19
PK00614
1/1



△						
△						
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△						
△						
△						
① 新製	61. 7.12					
訂	正					

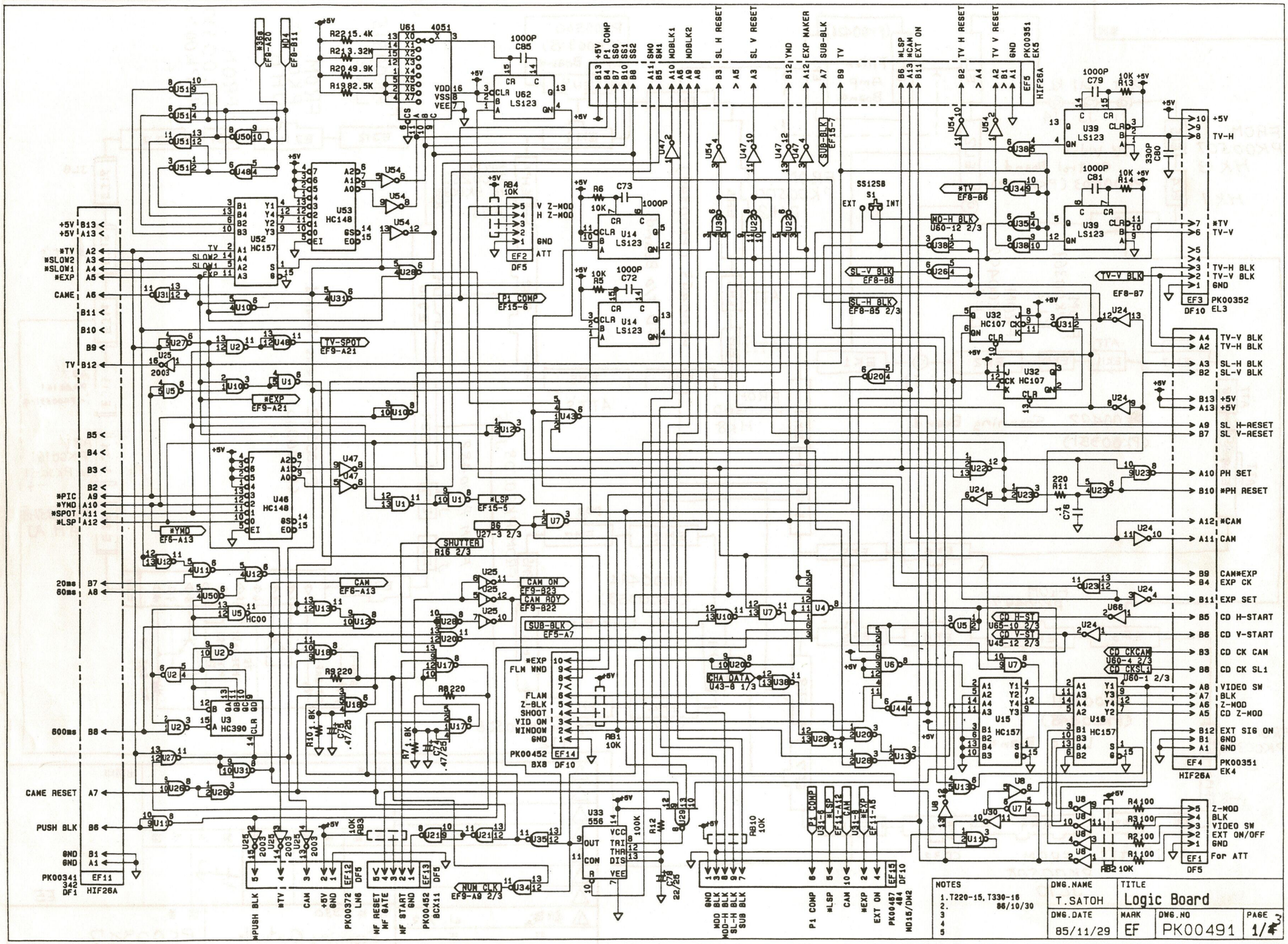
記事					出図印
承認	検図	設計	製図	写図	EE

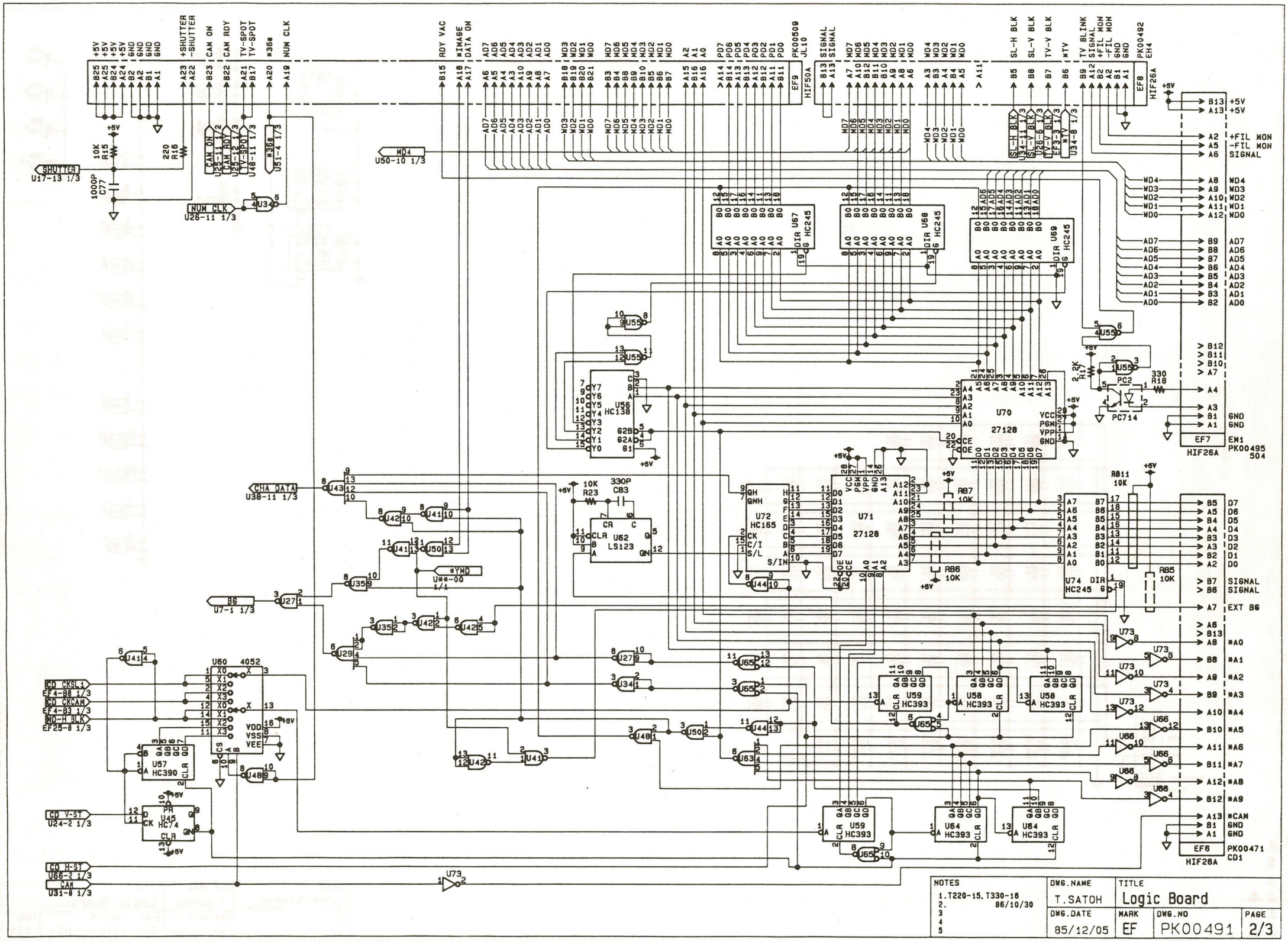
名称 T330 Scanning Controller

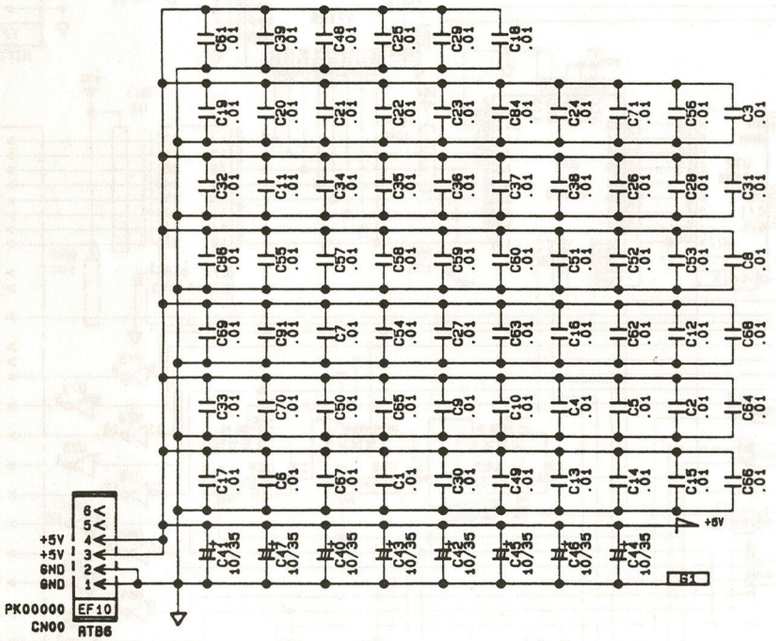
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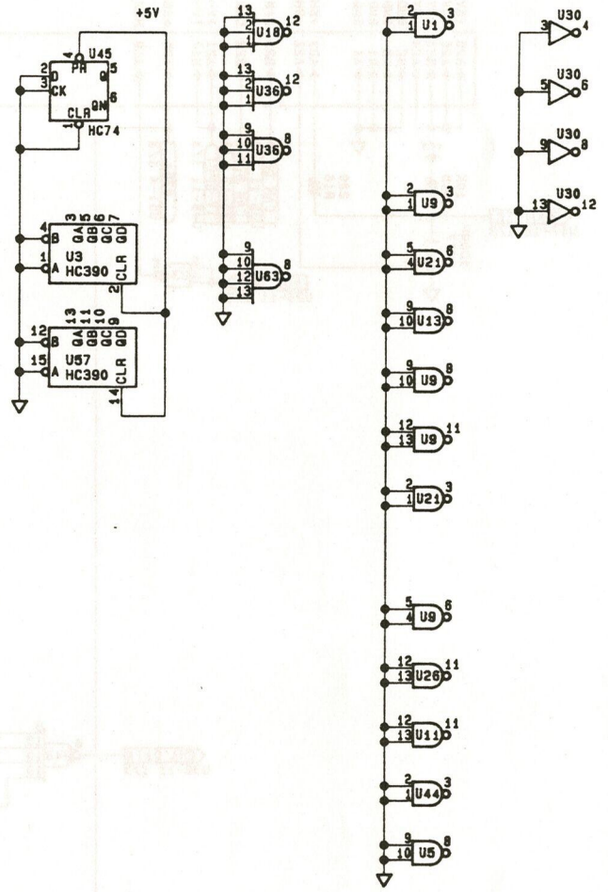
Y 5027 A3 (E) 58.6 1000

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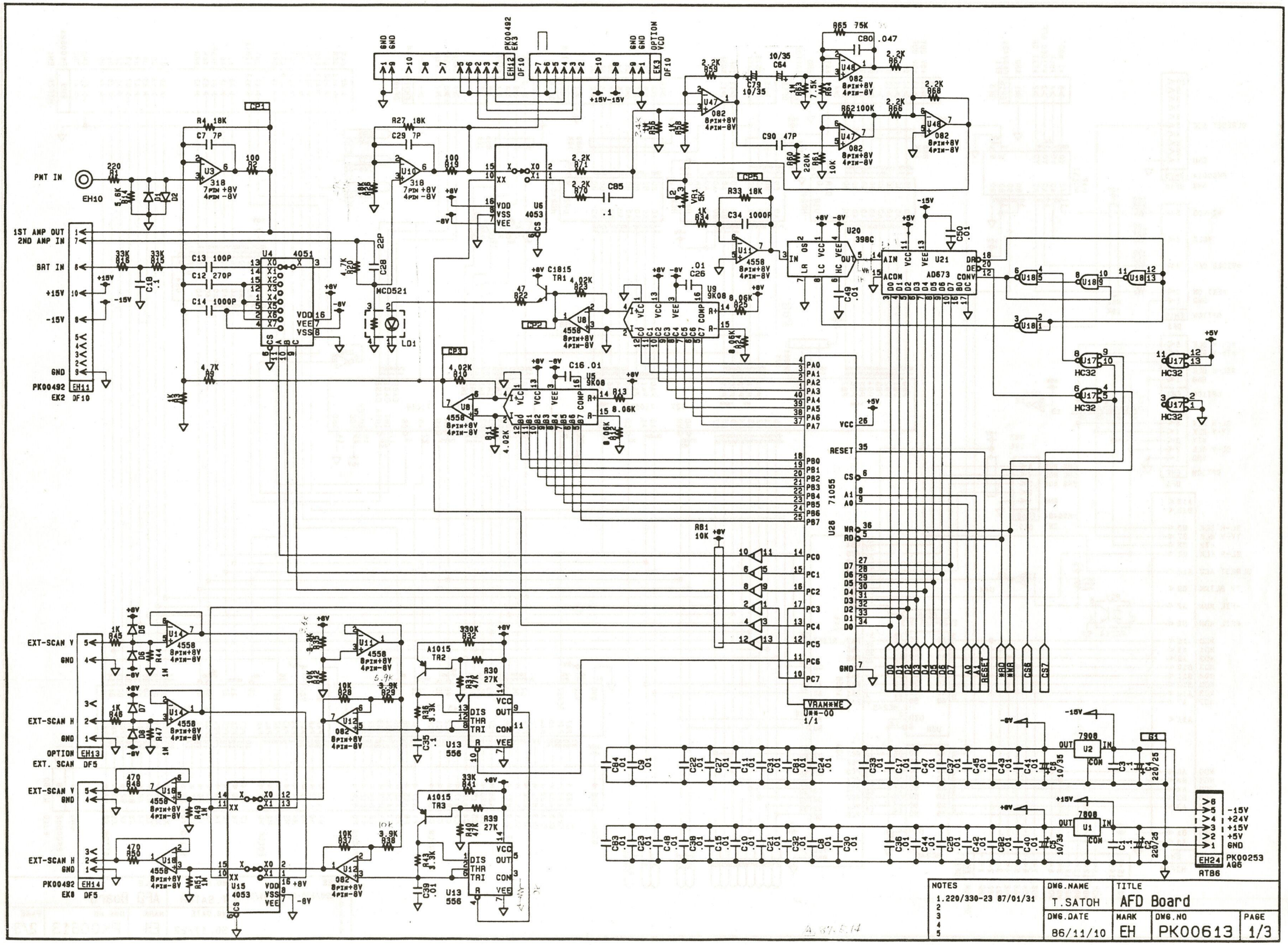

R22 15.4K
R21 3.32K
R20 49.9K
R19 82.5K
1000P C85
U62 LS123
U61 4051
VDD 16
VSS 8
VEE 7
+5V P1 COMP SS0 SS1 SS2 SMO SM1 MDBLK1 MDBLK2 SL H RESET SL V RESET YMD EXP MAKER SUB-BLK TV WLSP WCAM EXT ON TV H RESET TV V RESET GND PK00351 EK5 HIF26A
U53 HC148
U52 HC157
U3 HC390
U46 HC148
U39 LS123
1000P C79
10K R13
330P C80
1000P C81
10K R14
SS12SB S1 EXT INT
*TV EF8-86
NO-H BLK U60-12 2/3
SL-V BLK EF8-88
SL-H BLK EF8-85 2/3
TV-V BLK EF8-87
U32 HC107
U15 HC157
U16 HC157
CD H-ST U65-10 2/3
CD V-ST U45-12 2/3
CD CKCAM U60-4 2/3
CD CKSL1 U60-1 2/3
CHA DATA U43-8 1/3
SUB-BLK EF5-A7
SHUTTER R16 2/3
CAM EF6-A13
CAM ON EF9-B23
CAM ADV EF9-B22
NUM CLK EF9-A9 2/3
U33 556
RB1 10K
RB2 10K
RB3 10K
RB4 10K
RB10 10K
R8 220
R9 220
R10 1.8K
R11 220
R12 100K
C72 22/25
C73 .47/25
C74 .47/25
C76 .1
TV-SPOT EF9-A21
*EXP EF9-A21
*LSP EF15-5
*YMD EF6-A13
B6 U27-3 2/3
P1 COMP EF15-6
*EXP FLM WND
FLAM
Z-BLK
SHOOT
VID ON
WINDOW
GND
PK00452 BX8 DF10
EF14
V Z-MOD
H Z-MOD
GND
ATT
EF2 DF5
PK00372 LN6 DF5
PK00452 BCX11 DF5
PK00487 484 DF10
PK00341 342 DF1 HIF26A
PK00352 EL3 DF10
PK00351 EK4 HIF26A
EF1 For ATT DF5
EF3 DF10
EF4 HIF26A
EF5 HIF26A
EF11 HIF26A
EF12 DF5
EF13 DF5
EF15 DF10
B13 < +5V
B13 < +5V
A2 *TV
A3 *SLOW2
A4 *SLOW1
A5 *EXP
A6 CAME
B11 <
B10 <
B9 <
B12 TV
B5 <
B4 <
B3 <
B2 <
A9 *PIC
A10 *YMD
A11 *SPOT
A12 *LSP
20ms B7
60ms A8
500ms B8
A7 CAME RESET
B6 PUSH BLK
B1 GND
A1 GND
A4 TV-V BLK
A2 TV-H BLK
A3 SL-H BLK
B2 SL-V BLK
B13 +5V
A13 +5V
A9 SL H-RESET
B7 SL V-RESET
A10 PH SET
B10 *PH RESET
A12 *CAM
A11 CAM
B9 CAM*EXP
B4 EXP CK
B11 EXP SET
B5 CD H-START
B6 CD V-START
B3 CD CK CAM
B8 CD CK SL1
A8 VIDEO SW
A7 BLK
A6 Z-MOD
A5 CD Z-MOD
B12 EXT SIG ON
B1 GND
A1 GND
Z-MOD
BLK
VIDEO SW
EXT ON/OFF
GND
For ATT
*PUSH BLK
*TV
CAM
+5V
GND
MF RESET
MF GATE
MF START
GND
NUM CLK
GND
MDD BLK
MOD-H BLK
SL-H BLK
SUB BLK
P1 COMP
*LSP
CAM
*EXP
EXT ON
PK00487 484 MD15/DW2
NOTES
1.T220-15, T330-16
2. 86/10/30
3
4
5
DWG.NAME T.SATOH
TITLE Logic Board
DWG.DATE 85/11/29
MARK EF
DWG.NO PK00491
PAGE 1/

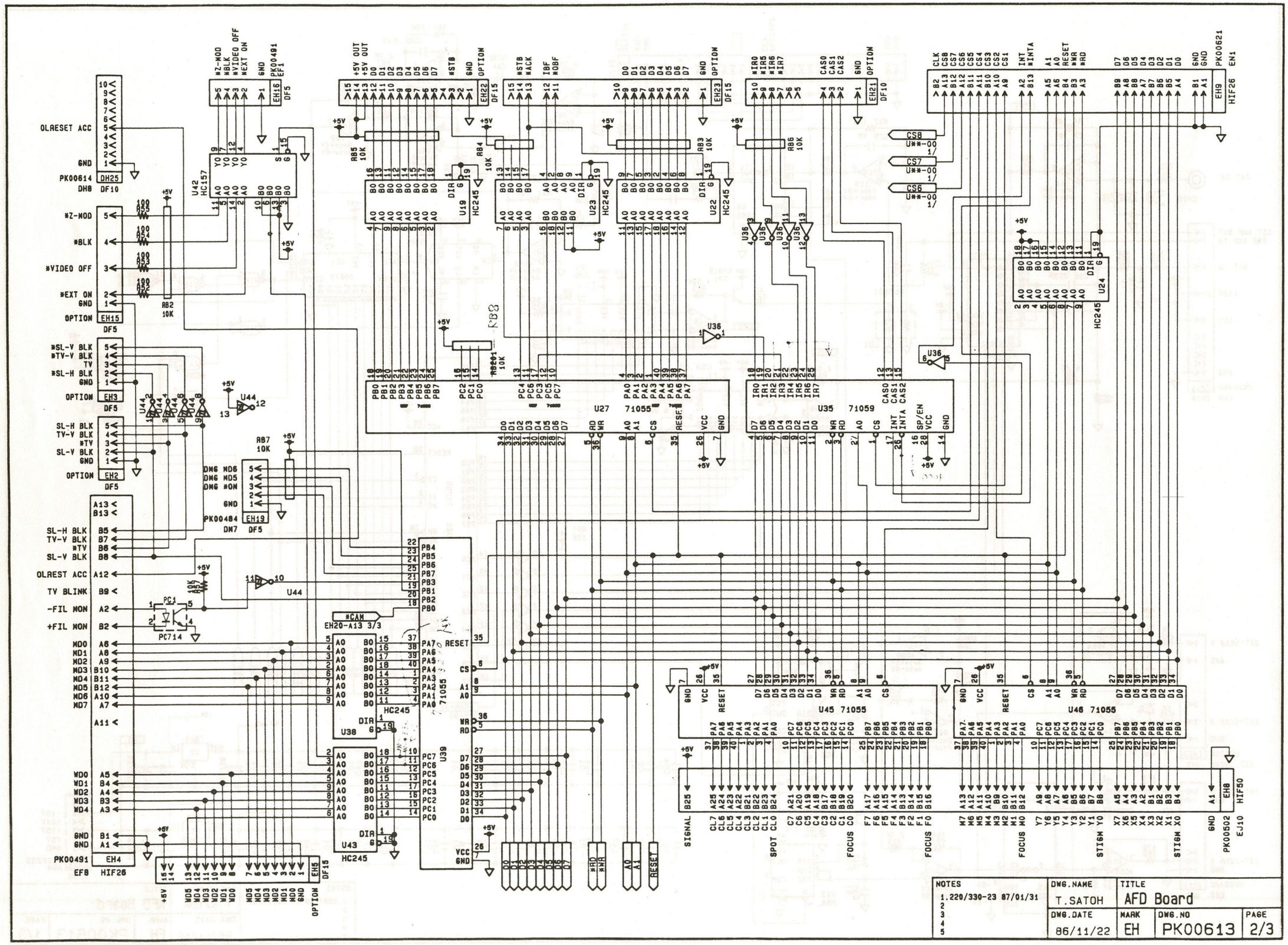

+SHUTTER
-SHUTTER
CAM ON
CAM RDY
TV-SPOT
TV-SPOT
*36m
NUM CLK
RDY VAC
*IMAGE
DATA ON
PK00509
JL10
EF9
HIF50A
SIGNAL
SIGNAL
SL-H BLK
SL-V BLK
TV-V BLK
*TV
TV BLINK
SIGNAL
+FIL MON
-FIL MON
GND
GND
PK00492
EH4
EF8
HIF26A
SHUTTER
U17-13 1/3
1000P
C77
10K
R15
220
R16
NUM CLK
U26-11 1/3
CAM ON
U25-11 1/3
CAM RDY
U25-12 1/3
TV-SPOT
U48-11 1/3
*36m
U51-4 1/3
MD4
U50-10 1/3
U67
U68
U69
HC245
U55
U56
HC138
U70
27128
PC2
PC714
2.2K
R17
330
R18
EF7
EM1
PK00495
504
HIF26A
CHA DATA
U38-11 1/3
U43
U42
U41
U50
U35
U27
U29
U34
U48
U44
U65
U63
U73
U66
10K
R23
330P
C83
U62
LS123
U72
HC165
U71
27128
RB6
10K
RB7
10K
RB11
10K
RB5
10K
*YMD
U**-00
B6
U7-1 1/3
U60
4052
U57
HC390
U45
HC74
U59
HC393
U58
HC393
U64
HC393
CD CKSL
EF4-B8 1/3
CD CKCAM
EF4-B3 1/3
MD-H BLK
EF25-8 1/3
CD V-ST
U24-2 1/3
CD H-ST
U66-2 1/3
CAM
U31-8 1/3
EF6
PK00471
CD1
HIF26A
NOTES
1.T220-15,T330-16
2. 86/10/30
3
4
5
DWG.NAME
T.SATOH
DWG.DATE
85/12/05
TITLE
Logic Board
MARK
EF
DWG.NO
PK00491
PAGE
2/3



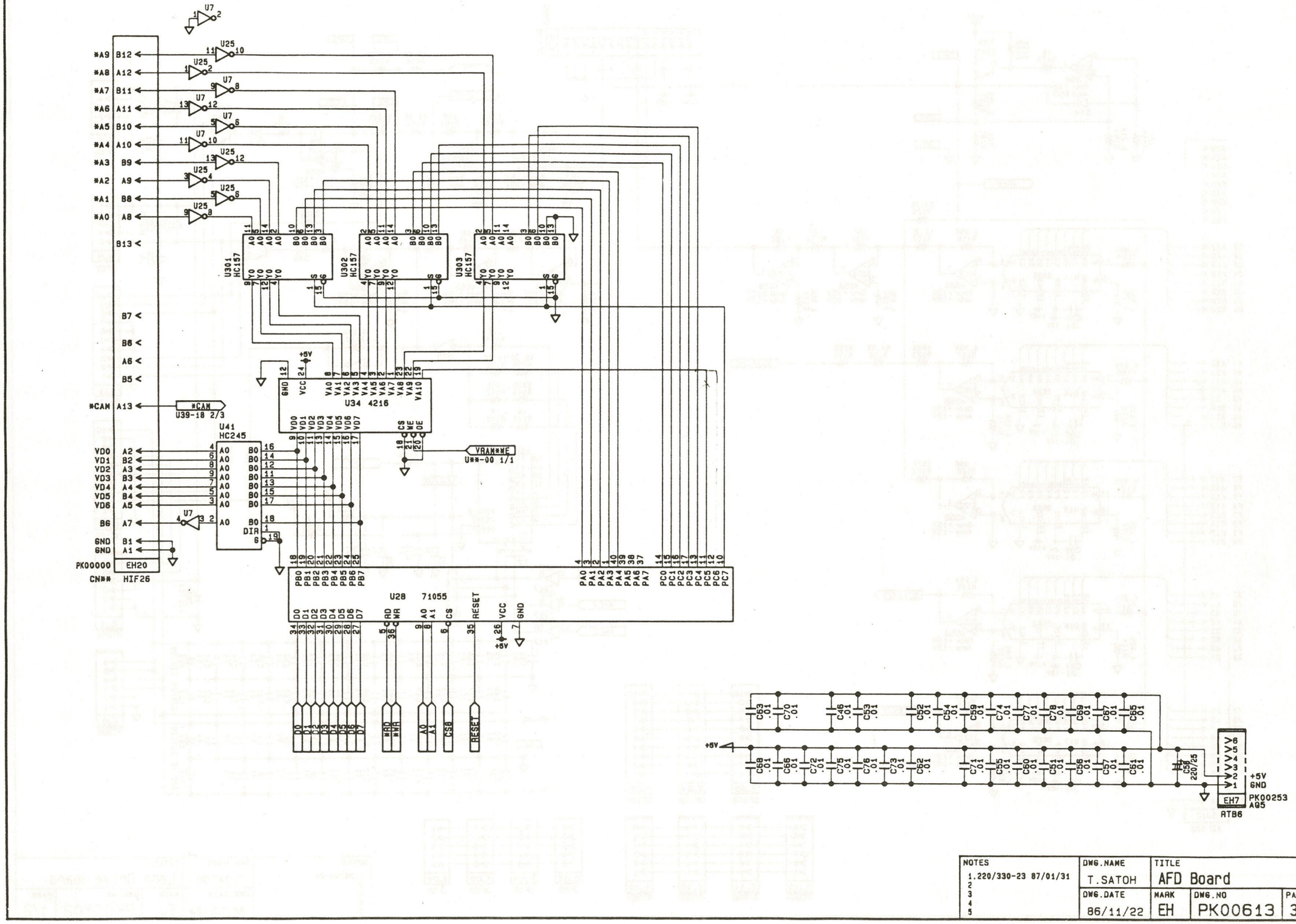


NOTES	DWG.NAME	TITLE			
1.T220-15, T330-15 2. 86/10/30 3 4 5	T.SATOH	Logic Board			
	DWG.DATE	MARK	DWG.NO		PAGE
	85/12/02	EF	PK00491		3/3

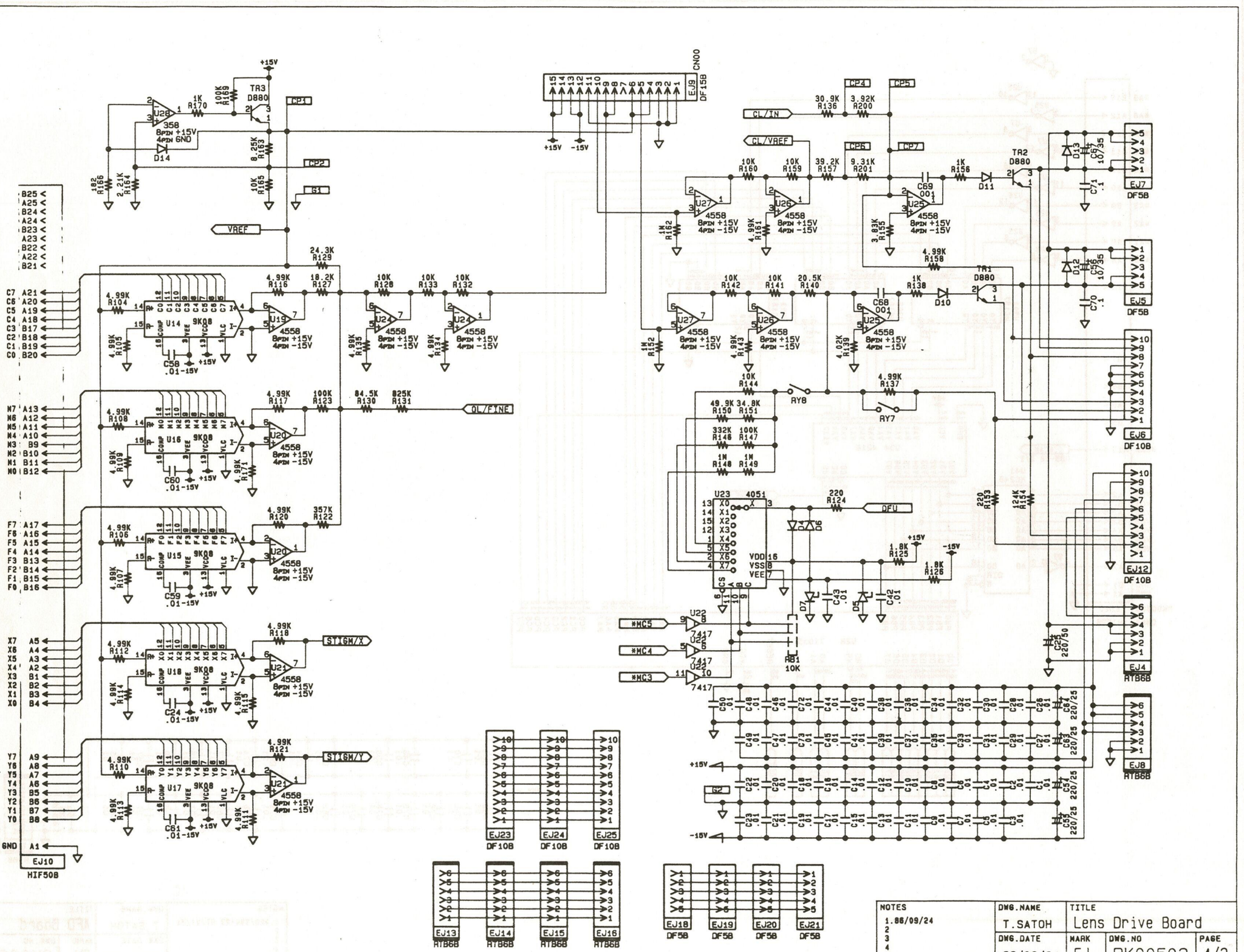

PMT IN
EH10
1ST AMP OUT
2ND AMP IN
BRT IN
+15V
-15V
GND
PK00492
EK2
EXT-SCAN V
EXT-SCAN H
OPTION
EXT. SCAN
MCD521
LD1
TR1
TR2
TR3
VRAM*WE
U*-00
1/1
T.SATOH
AFD Board
86/11/10
EH
PK00613
1/3



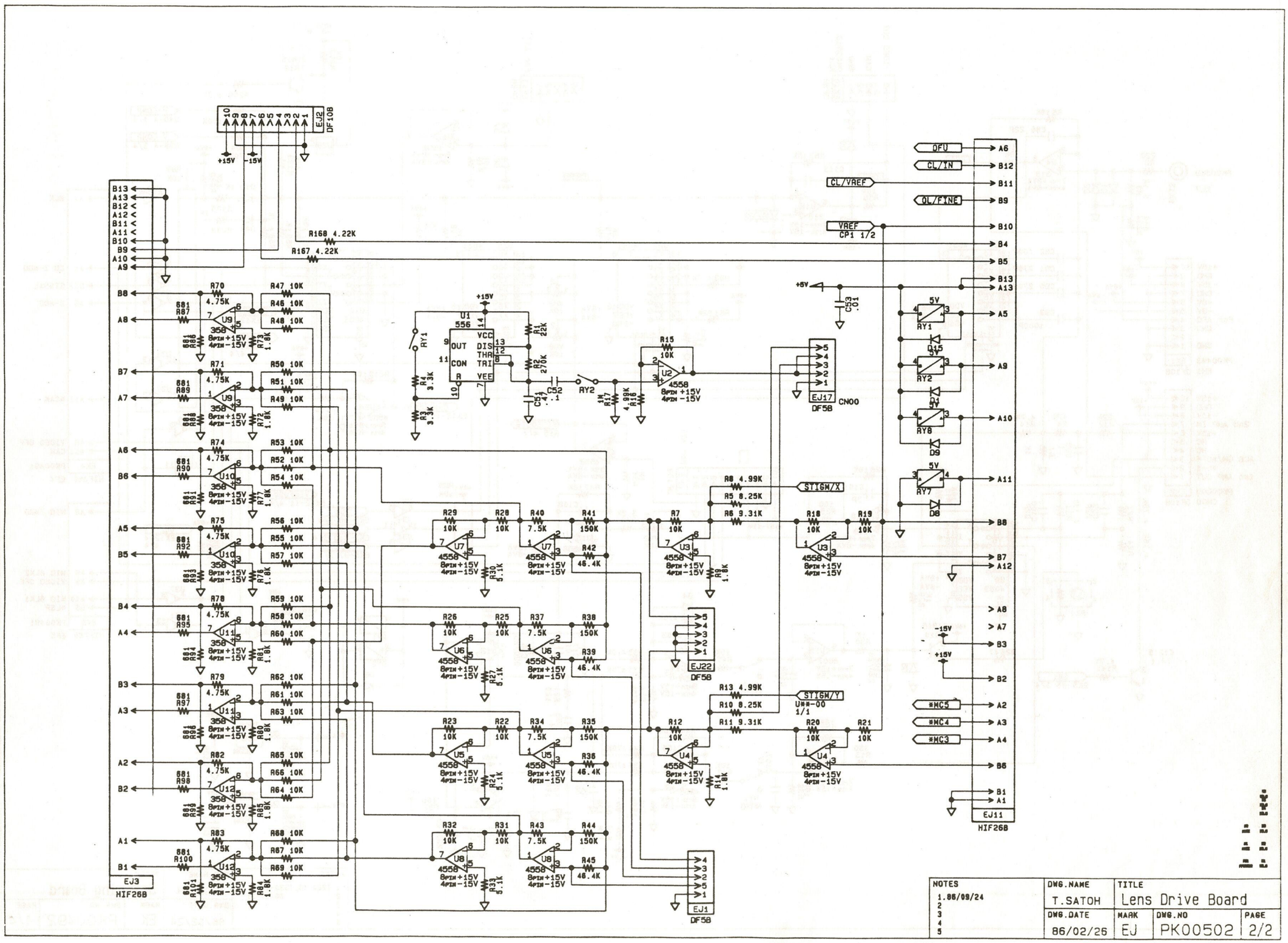
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1.220/330-23 87/01/31	T.SATOH	AFD Board		
	DWG.DATE	MARK	DWG.NO	PAGE
	86/11/22	EH	PK00613	2/3

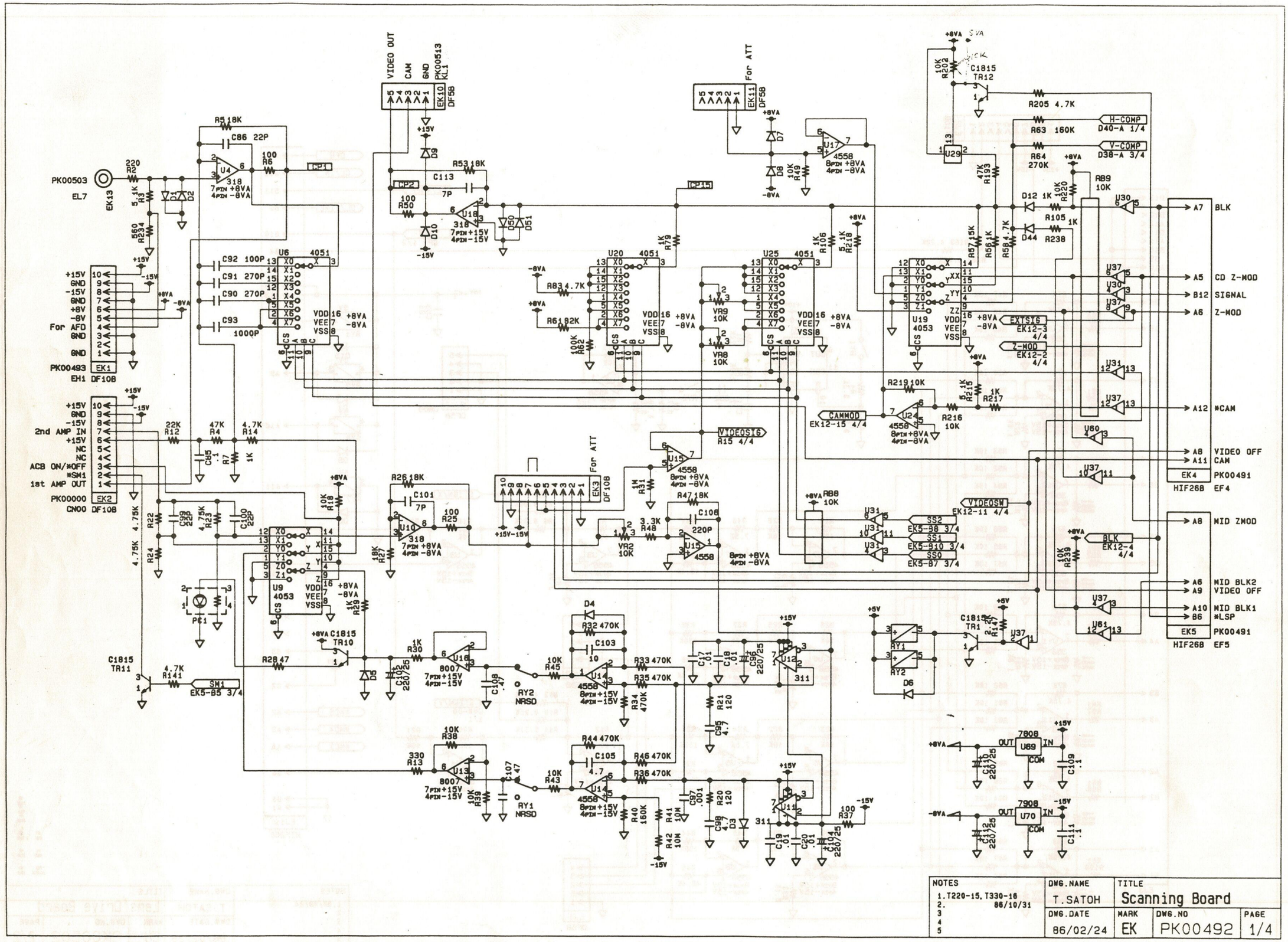


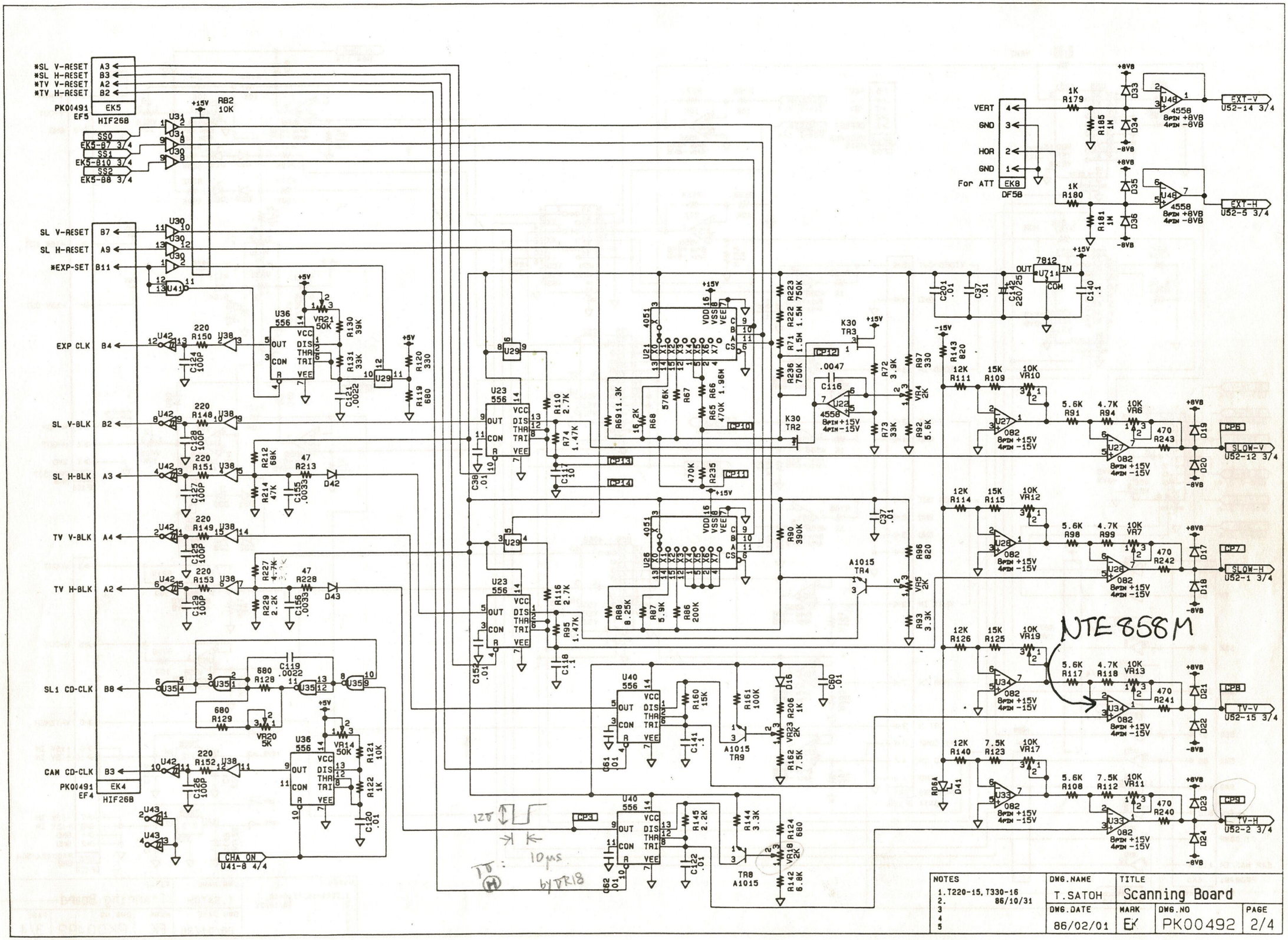
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1.220/330-23 87/01/31 2 3 4 5	T.SATOH	AFD Board		
	DWG.DATE	MARK	DWG.NO	PAGE
	86/11/22	EH	PK00613	3/3

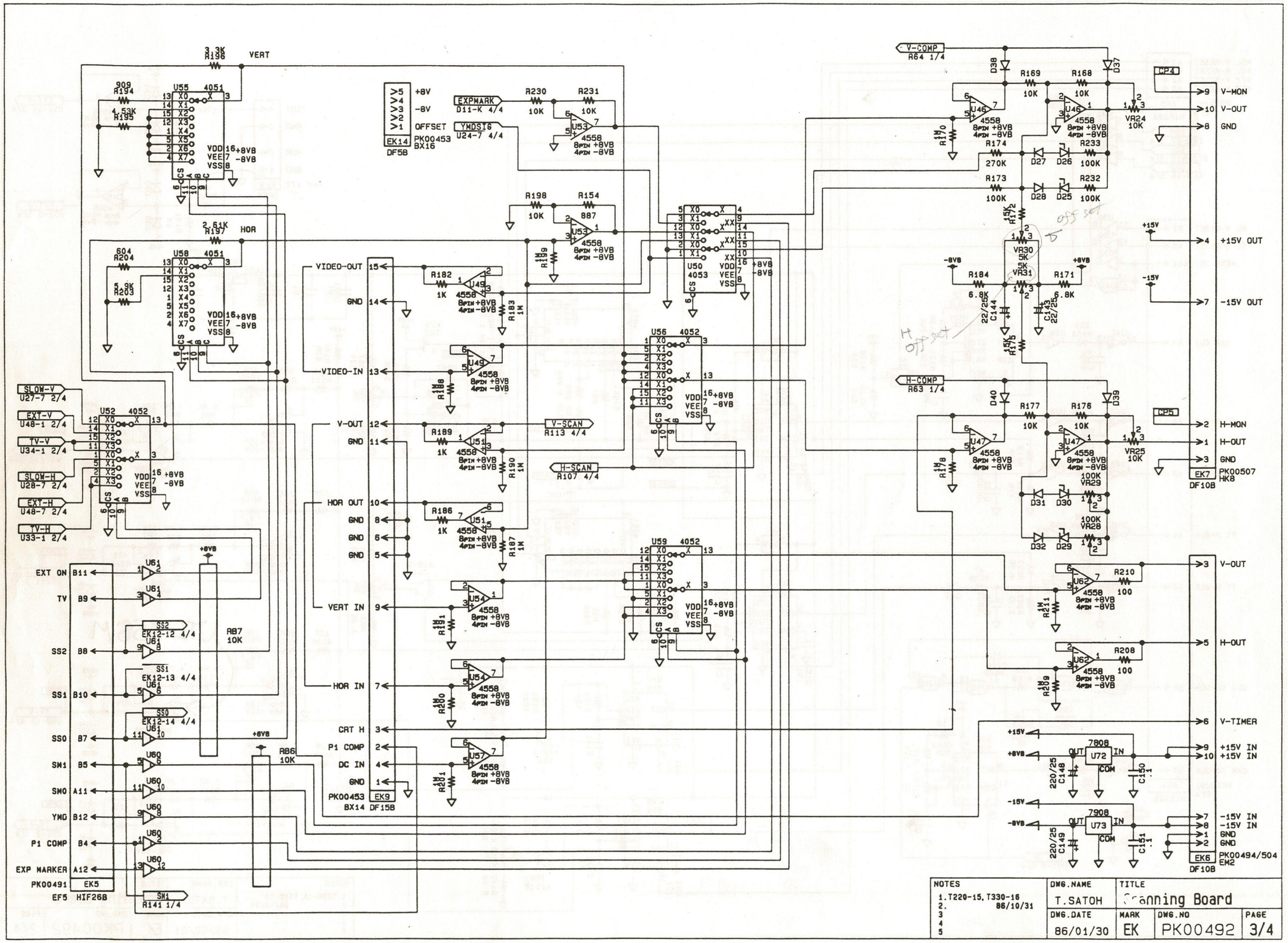


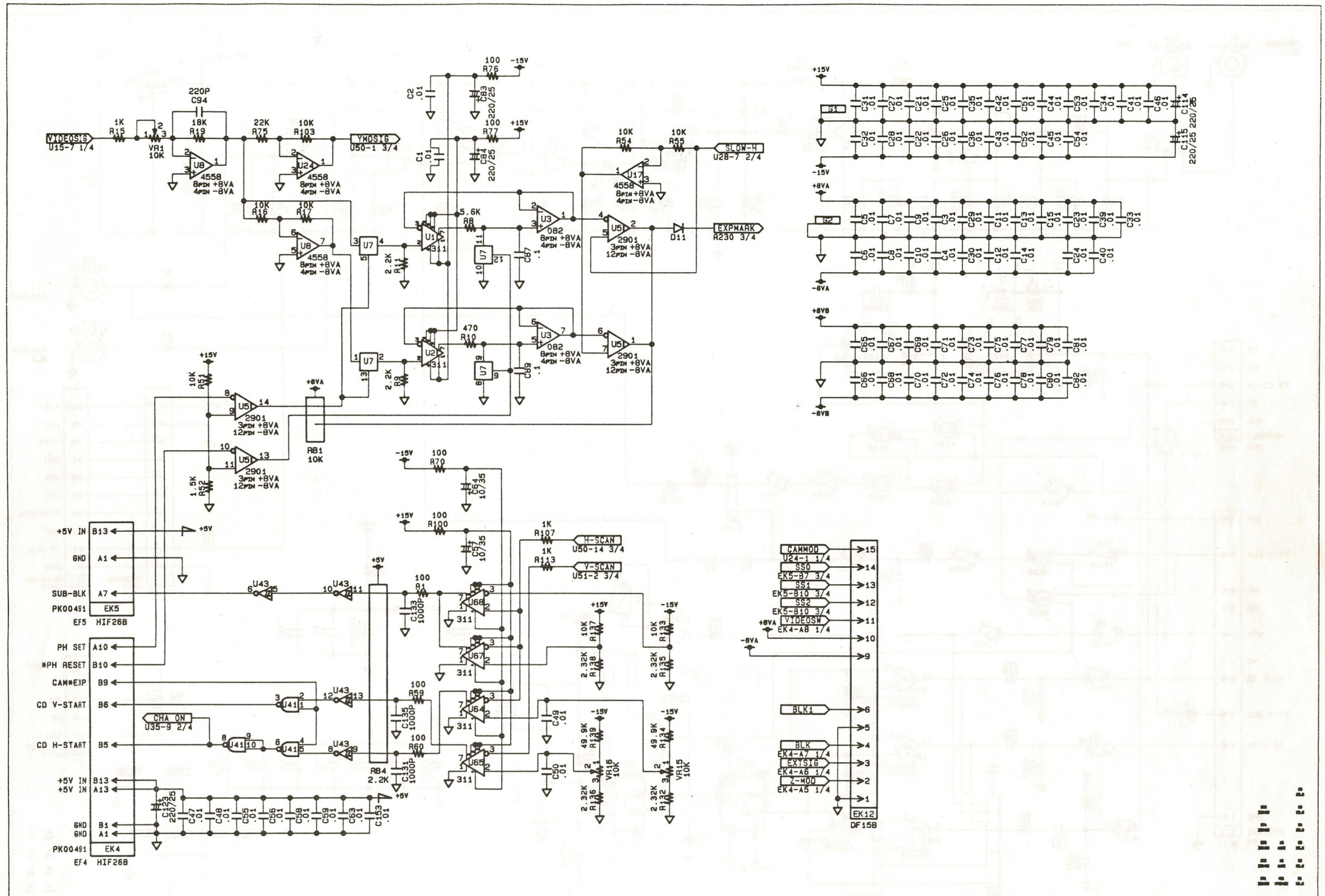
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1.86/09/24 2 3 4 5	T.SATOH	Lens Drive Board			
	DWG.DATE	MARK	DWG.NO	PAGE	
	86/02/24	EJ	PK00502	1/2	


EJ2
DF108
+15V
-15V
B13
A13
B12
A12
B11
A11
B10
B9
A10
A9
R168 4.22K
R167 4.22K
B8
A8
R70
4.75K
R47 10K
R46 10K
R48 10K
681
R87
U9
358
8PIN +15V
4PIN -15V
R71
1.8K
B7
A7
R71
4.75K
R50 10K
R51 10K
R49 10K
681
R89
U9
358
8PIN +15V
4PIN -15V
R72
1.8K
A6
B6
R74
4.75K
R53 10K
R52 10K
R54 10K
681
R90
U10
358
8PIN +15V
4PIN -15V
R73
1.8K
A5
B5
R75
4.75K
R56 10K
R55 10K
R57 10K
681
R92
U10
358
8PIN +15V
4PIN -15V
R76
1.8K
B4
A4
R78
4.75K
R59 10K
R58 10K
R60 10K
681
R95
U11
358
8PIN +15V
4PIN -15V
R81
1.8K
B3
A3
R79
4.75K
R62 10K
R61 10K
R63 10K
681
R97
U11
358
8PIN +15V
4PIN -15V
R80
1.8K
A2
B2
R82
4.75K
R65 10K
R66 10K
R64 10K
681
R98
U12
358
8PIN +15V
4PIN -15V
R85
1.8K
A1
B1
R83
4.75K
R68 10K
R67 10K
R69 10K
681
R100
U12
358
8PIN +15V
4PIN -15V
R84
1.8K
EJ3
HIF26B
+15V
U1
556
VCC
OUT
DIS
CON
THR
TRI
R
VEE
R1
22K
R2
270K
C51
.47
C52
.1
RY1
R4
3.3K
R3
3.3K
RY2
R15
10K
U2
4558
8PIN +15V
4PIN -15V
R17
1M
R18
4.99K
+5V
C53
.01
EJ17
DF58
CN00
DFU
CL/IN
CL/VREF
CL/FINE
VREF
CP1 1/2
A6
B12
B11
B9
B10
B4
B5
B13
A13
5V
RY1
A5
D15
RY2
A9
D1
RY8
A10
D9
5V
RY7
D8
A11
R29
10K
R28
10K
R40
7.5K
R41
150K
U7
4558
8PIN +15V
4PIN -15V
R30
5.1K
R42
46.4K
R8 4.99K
R5 8.25K
R6 9.31K
R7
10K
U3
4558
8PIN +15V
4PIN -15V
R9
1.8K
STIGM/X
R18
10K
R19
10K
B8
B7
A12
R26
10K
R25
10K
R37
7.5K
R38
150K
U6
4558
8PIN +15V
4PIN -15V
R27
5.1K
R39
46.4K
EJ22
DF58
A8
A7
-15V
B3
+15V
B2
R13 4.99K
R10 8.25K
R11 9.31K
R12
10K
U4
4558
8PIN +15V
4PIN -15V
R14
1.8K
STIGM/Y
U##-00
1/1
R20
10K
R21
10K
#MC5
#MC4
#MC3
A2
A3
A4
B6
B1
A1
R23
10K
R22
10K
R34
7.5K
R35
150K
U5
4558
8PIN +15V
4PIN -15V
R24
5.1K
R36
46.4K
R32
10K
R31
10K
R43
7.5K
R44
150K
U8
4558
8PIN +15V
4PIN -15V
R33
5.1K
R45
46.4K
EJ1
DF58
EJ11
HIF26B
NOTES
1.86/09/24
2
3
4
5
DWG.NAME
T.SATOH
TITLE
Lens Drive Board
DWG.DATE
86/02/26
MARK
EJ
DWG.NO
PK00502
PAGE
2/2


PK00503
EL7
EK13
PK00493
EH1 DF108
EK1
PK00000
CN00 DF108
EK2
2nd AMP IN
ACB ON/#OFF
1st AMP OUT
For AFD
For ATT
VIDEO OUT
CAM
GND
PK00513
KL1
EK10 DF56
EK11 DF56
EK3 DF108
U4 318
U6 4051
U9 4053
U10 318
U13 8007
U14 4558
U15 4558
U16 8007
U17 4558
U18 318
U20 4051
U24 4558
U25 4051
U29
U30
U31
U37
U60
U61
U69 7808
U70 7908
U11 311
U12 311
U19 4053
RY1
RY2
NRSD
SW1 EK5-85 3/4
PC1
D1
D2
D4
D5
D6
D7
D8
D9
D10
D50
D51
D44
VR2 10K
VR8 10K
VR9 10K
CP1
CP2
CP15
TR10
TR11
TR12
C1815
EXTSIG EK12-3 4/4
Z-MOD EK12-2 4/4
CAMMOD EK12-15 4/4
VIDEOSIG A15 4/4
VIDEOSW EK12-11 4/4
BLK EK12-4 4/4
SS2 EK5-88 3/4
SS1 EK5-810 3/4
SS0 EK5-87 3/4
H-COMP D40-A 1/4
V-COMP D38-A 3/4
A7 BLK
A5 CD Z-MOD
B12 SIGNAL
A6 Z-MOD
A12 #CAM
A8 VIDEO OFF
A11 CAM
EK4 PK00491
HIF26B EF4
A8 MID ZMOD
A6 MID BLK2
A9 VIDEO OFF
A10 MID BLK1
B6 #LSP
EK5 PK00491
HIF26B EF5
NOTES
1.T220-15, T330-16
2. 86/10/31
3
4
5
DWG.NAME T.SATOH
DWG.DATE 86/02/24
TITLE Scanning Board
MARK EK
DWG.NO PK00492
PAGE 1/4


*SL V-RESET
*SL H-RESET
*TV V-RESET
*TV H-RESET
PK00491 EF5
EK5 HIF26B
SS0 EK5-B7 3/4
SS1 EK5-B10 3/4
SS2 EK5-B8 3/4
RB2 10K
SL V-RESET B7
SL H-RESET A9
*EXP-SET B11
EXP CLK B4
SL V-BLK B2
SL H-BLK A3
TV V-BLK A4
TV H-BLK A2
SL1 CD-CLK B8
CAM CD-CLK B3
PK00491 EF4 EK4 HIF26B
CHA ON U41-8 4/4
VERT
GND
HOR
GND
For ATT
EK8 DF58
EXT-V U52-14 3/4
EXT-H U52-5 3/4
SLOW-V U52-12 3/4
SLOW-H U52-1 3/4
TV-V U52-15 3/4
TV-H U52-2 3/4
NTE858M
NOTES
1.T220-15, T330-16
2. 86/10/31
DWG.NAME T.SATOH
DWG.DATE 86/02/01
TITLE Scanning Board
MARK EK
DWG.NO PK00492
PAGE 2/4


3.3K R196 VERT
909 R194
4.53K R195
U55 4051
2.61K R197 HOR
604 R204
5.9K R203
U58 4051
VDD 16 +8VB
VEE 7 -8VB
VSS 8
EK14 PK00453 BX16 DF5B
+8V
-8V
OFFSET
EXPMARK D11-K 4/4
YMDSIG U24-7 4/4
R230 10K
R231 10K
U53 4558 8PIN +8VB 4PIN -8VB
R198 10K
R154 887
U50 4053
U56 4052
U59 4052
VIDEO-OUT
GND
VIDEO-IN
V-OUT
HOR OUT
VERT IN
HOR IN
CAT H
P1 COMP
DC IN
PK00453 BX14 DF15B
EK9
R182 1K
R183 1M
R188 1M
R189 1K
R190 1M
R186 1K
R187 1M
R191 1M
R200 1M
R201 1M
U49 4558
U51 4558
U54 4558
U57 4558
V-SCAN R113 4/4
H-SCAN R107 4/4
SLOW-V U27-7 2/4
EXT-V U48-1 2/4
TV-V U34-1 2/4
SLOW-H U28-7 2/4
EXT-H U48-7 2/4
TV-H U33-1 2/4
U52 4052
EXT ON
TV
SS2
SS1
SS0
SM1
SM0
YMG
P1 COMP
EXP MARKER
PK00491 EK5 EF5 HIF26B
SS2 EK12-12 4/4
SS1 EK12-13 4/4
SS0 EK12-14 4/4
SM1 R141 1/4
RB7 10K
RB6 10K
+8VB
V-COMP R64 1/4
H-COMP R63 1/4
R169 10K
R168 10K
R174 270K
R173 100K
R233 100K
R232 100K
R177 10K
R176 10K
R210 100
R208 100
U46 4558
U47 4558
U62 4558
D38 D37 D27 D26 D28 D25
D40 D39 D31 D30 D32 D29
VR24 10K
VR25 10K
VR30 5K
VR31 5K
100K VR29
100K VR28
R172 15K
R175 15K
R184 6.8K
R171 6.8K
C144 22/25
C143 22/25
CP24
CP5
V-MON
V-OUT
GND
+15V OUT
-15V OUT
H-MON
H-OUT
EK7 PK00507 HK8 DF10B
V-TIMER
+15V IN
-15V IN
U72 7808
U73 7908
C148 220/25
C149 220/25
C150 .1
C151 .1
EK6 PK00494/504 EM2 DF10B
NOTES
1.T220-15, T330-16
2. 86/10/31
DWG.NAME T.SATOH
TITLE Scanning Board
DWG.DATE 86/01/30
MARK EK
DWG.NO PK00492
PAGE 3/4



NOTES	DWG.NAME	TITLE		
1.T220-15, T330-15 2. 86/10/31 3 4 5	T.SATOH	Scanning Board		
	DWG.DATE	MARK	DWG.NO	PAGE
	86/01/31	EK	PK00492	4/4

PK00492
EK13

EL7 RCA7017A
EL6 RCA7017A
PMT

L1 100uH
L2 100uH

U1 AN607
U2 318 7pin +12V 4pin GND

TR1 C1815
TR2 C1815
TR3 C1815
TR4 A1015
TR5 C2085
TR6 C2085

7812 U16 OUT IN COM

+12V
+15V
+5V
+8V
-8V
-15V
GND

EL8 RCA7017A EXT-OUT
EL9 RCA7017A

PK00513
KL2

EL1 PK00000 CN00 DF10
EL2 PK00000 CN00 DF10

EL4 PK00507 HK1 DF5
EL3 PK00491 EF3 DF10
EL5 PK00507 HK13 DF5

NC
TV Clock
TV
GND
TV-H BLK
TV-V BLK
*TV
TV-H TR
TV-V TR
Slow Sig.
TV Sig.
DC Cont

U9 2901 3PIN+15V-FIL 12PINGND
U10 HC14
U12 HC00
U13 HC04
U15 HC00
U4 7417
U5 MC1455
U6 MN116 H-OUT IN R-OUT V-OUT

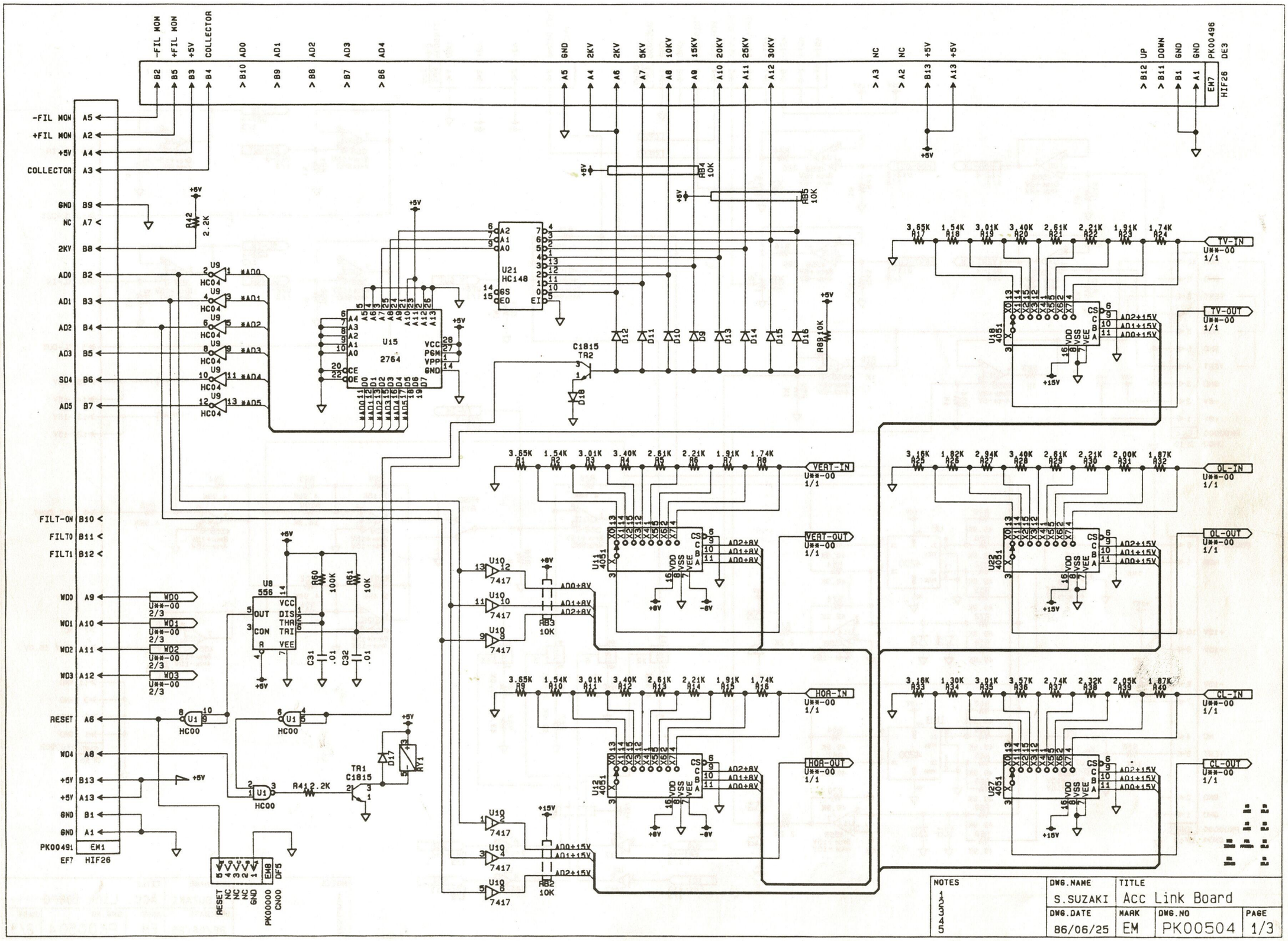
VR1 20K
VR2 5K
VR3 5K
VR4 50K

RB1 2.2K
RB2 10K

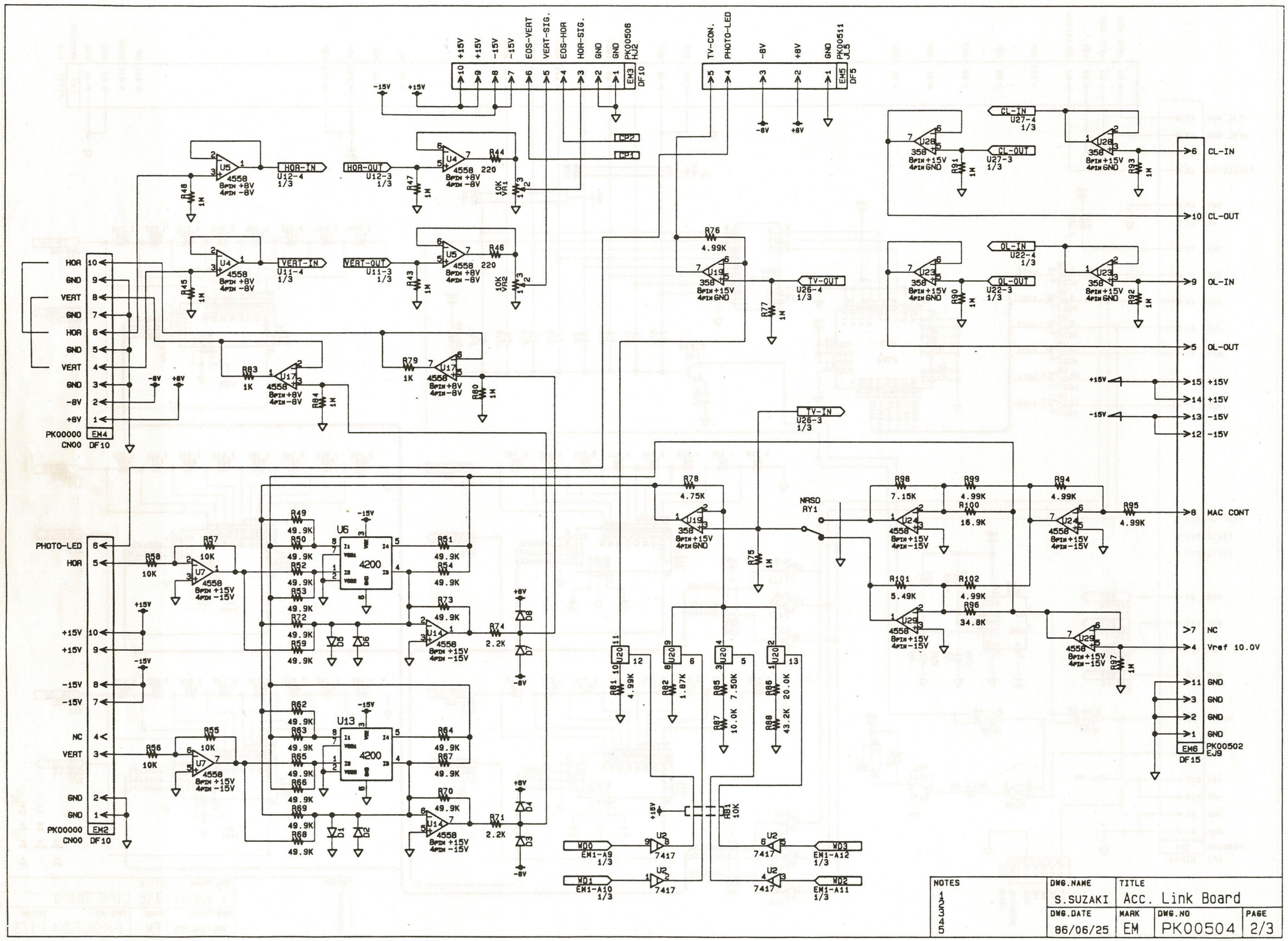
TP 31.5KHz 31.7μs

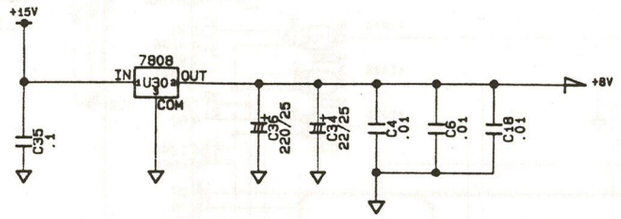
U3 U7 U8 U14

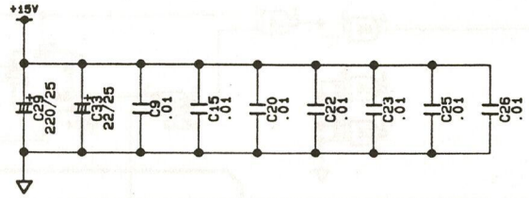
NOTES	DWG.NAME	TITLE
1 2 3 4 5	S.SUZAKI	TV Video Cont Board
	DWG.DATE 86/06/25	MARK EL / DWG.NO PK00503 / PAGE 1/1

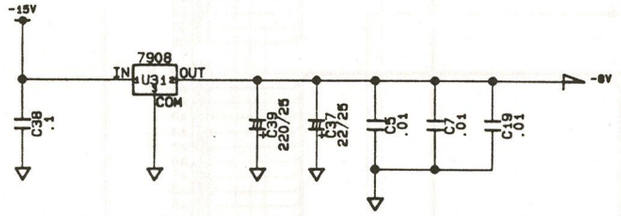

-FIL MON
+FIL MON
+5V
COLLECTOR
AD0
AD1
AD2
AD3
AD4
GND
2KV
2KV
5KV
10KV
15KV
20KV
25KV
30KV
NC
NC
+5V
+5V
UP
DOWN
GND
GND
PK00496
DE3
EM7
HIF26
A5
A2
A4
A3
B9
A7
B8
B2
B3
B4
B10
B11
B12
B13
A13
A12
A11
A10
A9
A8
A6
B6
B7
B5
B1
A1
R12 2.2K
RB4 10K
RB5 10K
U21 HC148
U15 2764
C1815 TR2
D12
D11
D10
D9
D13
D14
D15
D16
RB9 10K
D18
3.65K A17
1.54K A18
3.01K A19
3.40K A20
2.61K A21
2.21K A22
1.91K A23
1.74K A24
TV-IN U**-00 1/1
TV-OUT U**-00 1/1
U18 4051
AD2+15V
AD1+15V
AD0+15V
VEAT-IN U**-00 1/1
VEAT-OUT U**-00 1/1
U11 4051
AD2+8V
AD1+8V
AD0+8V
RB3 10K
3.18K A25
1.82K A26
2.94K A27
3.40K A28
2.61K A29
2.21K A30
2.00K A31
1.87K A32
OL-IN U**-00 1/1
OL-OUT U**-00 1/1
U22 4051
HOR-IN U**-00 1/1
HOR-OUT U**-00 1/1
U12 4051
RB2 10K
3.18K A33
1.30K A34
3.01K A35
3.57K A36
2.74K A37
2.32K A38
2.05K A39
1.87K A40
CL-IN U**-00 1/1
CL-OUT U**-00 1/1
U27 4051
FILT-ON B10
FILT0 B11
FILT1 B12
WD0 A9
WD1 A10
WD2 A11
WD3 A12
RESET A6
WD4 A8
+5V B13
+5V A13
GND B1
GND A1
PK00491 EM1
EF7 HIF26
U8 556
R60 100K
R61 10K
C31 .01
C32 .01
U10 7417
RB1 10K
TR1 C1815
R41 2.2K
D17
RY1
HC00
RESET
NC
NC
NC
GND
PK00000 CN00
EM8
DF5
NOTES
1
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5
DWG.NAME S.SUZAKI
TITLE Acc Link Board
DWG.DATE 86/06/25
MARK EM
DWG.NO PK00504
PAGE 1/3

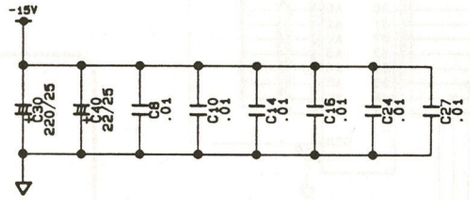
LLD

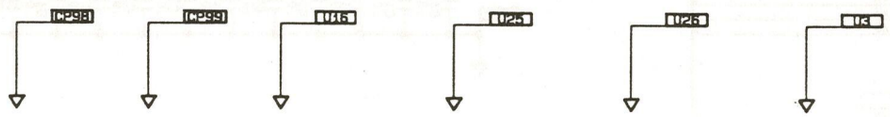

EOS-VERT
VERT-SIG.
EOS-HOR
HOR-SIG.
GND
GND
PK00506 HJ2
EM3 DF10
TV-CON.
PHOTO-LED
-8V
+8V
GND
PK00511 JL5
EM5 DF5
HOR-IN
U12-4 1/3
HOR-OUT
U12-3 1/3
VERT-IN
U11-4 1/3
VERT-OUT
U11-3 1/3
TV-OUT
U26-4 1/3
TV-IN
U26-3 1/3
CL-IN
U27-4 1/3
CL-OUT
U27-3 1/3
OL-IN
U22-4 1/3
OL-OUT
U22-3 1/3
HOR
GND
VERT
PK00000 CN00 EM4 DF10
PHOTO-LED
PK00000 CN00 EM2 DF10
NRSD RY1
MAC CONT
Vref 10.0V
PK00502 EJ9 EM6 DF15
WD0 EM1-A9 1/3
WD1 EM1-A10 1/3
WD2 EM1-A11 1/3
WD3 EM1-A12 1/3
NOTES
1
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5
DWG.NAME S.SUZAKI
TITLE Acc. Link Board
DWG.DATE 86/06/25
MARK EM
DWG.NO PK00504
PAGE 2/3



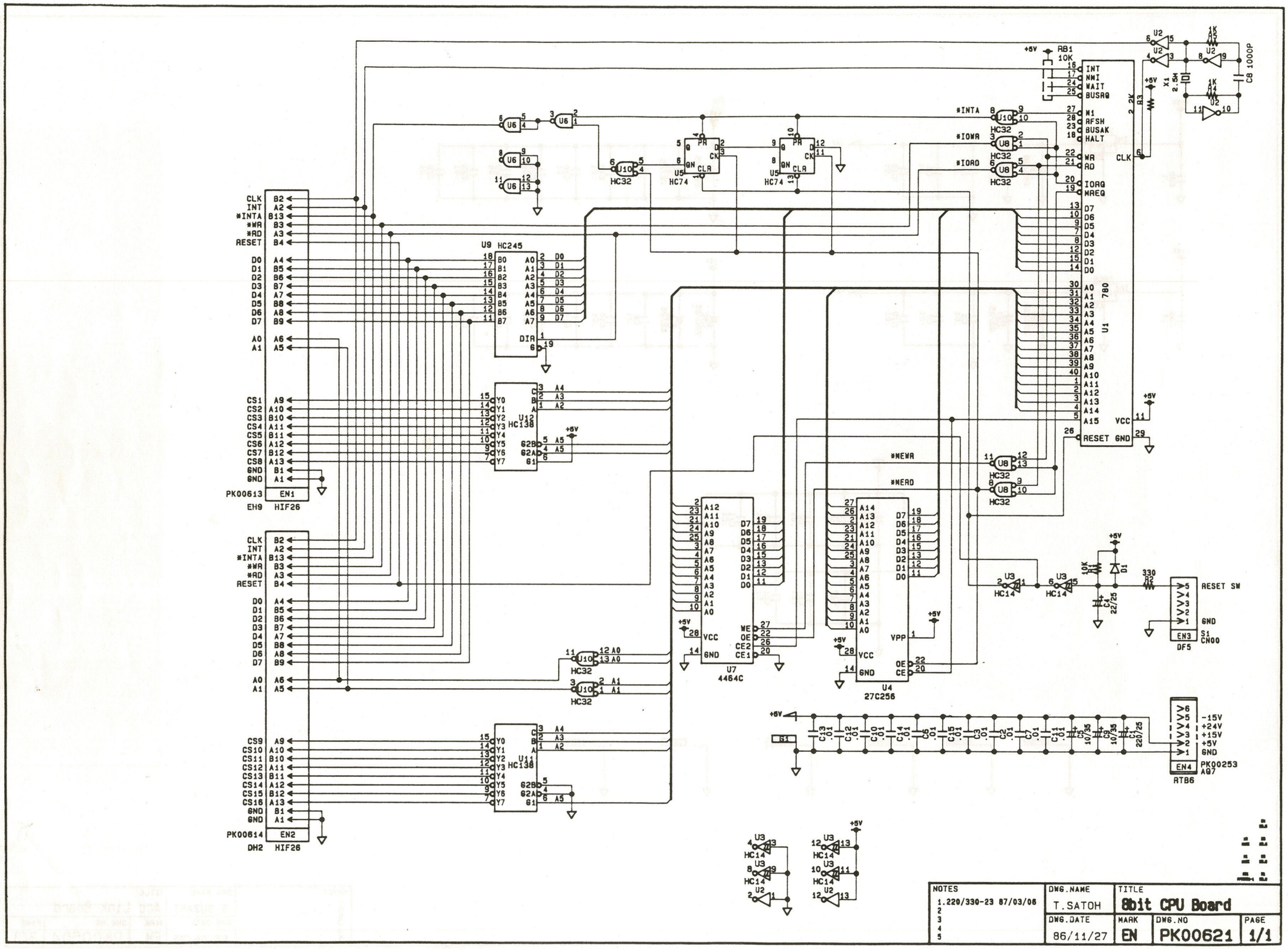




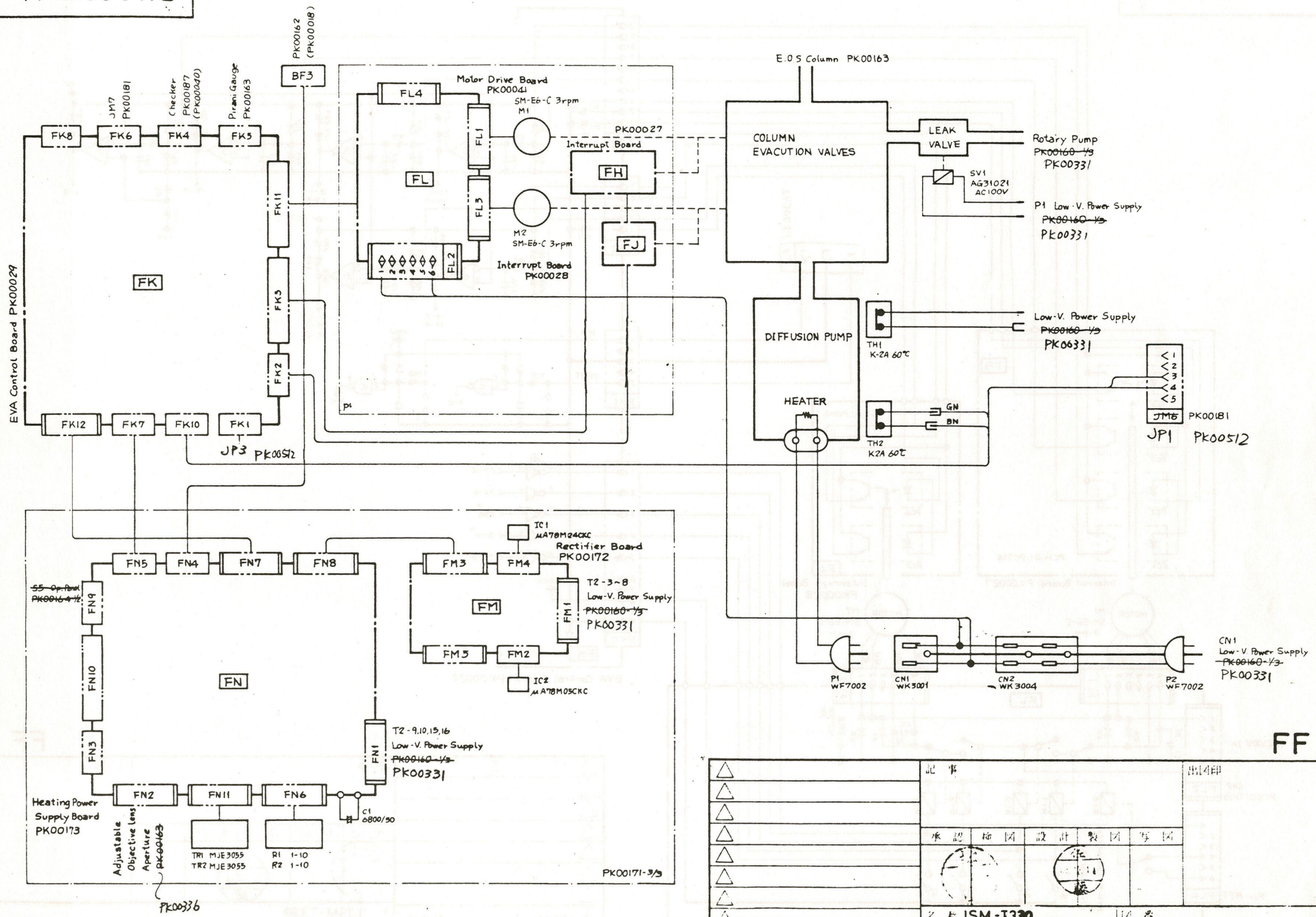




NOTES	DWG.NAME	TITLE			
1 2 3 4 5	S.SUZAKI	Acc Link Board			
	DWG.DATE	MARK	DWG.NO		PAGE
	86/06/25	EM	PK00504		3/3


U9 HC245
U11 HC138
U12 HC138
U7 4464C
U4 27C256
U1 Z80
RB1 10K
X1 2.5M
C8 1000P
R3 2.2K
EH9 HIF26
DH2 HIF26
DF5
RTB6
RESET SW
PK00613
PK00614
PK00253
NOTES
1.220/330-23 87/03/06
DWG.NAME T.SATOH
TITLE 8bit CPU Board
DWG.DATE 86/11/27
MARK EN
DWG.NO PK00621
PAGE 1/1

PK00355-1/3



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2 TS21000L~	56.12.17					
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記事

承認	検図	設計	製図	写図

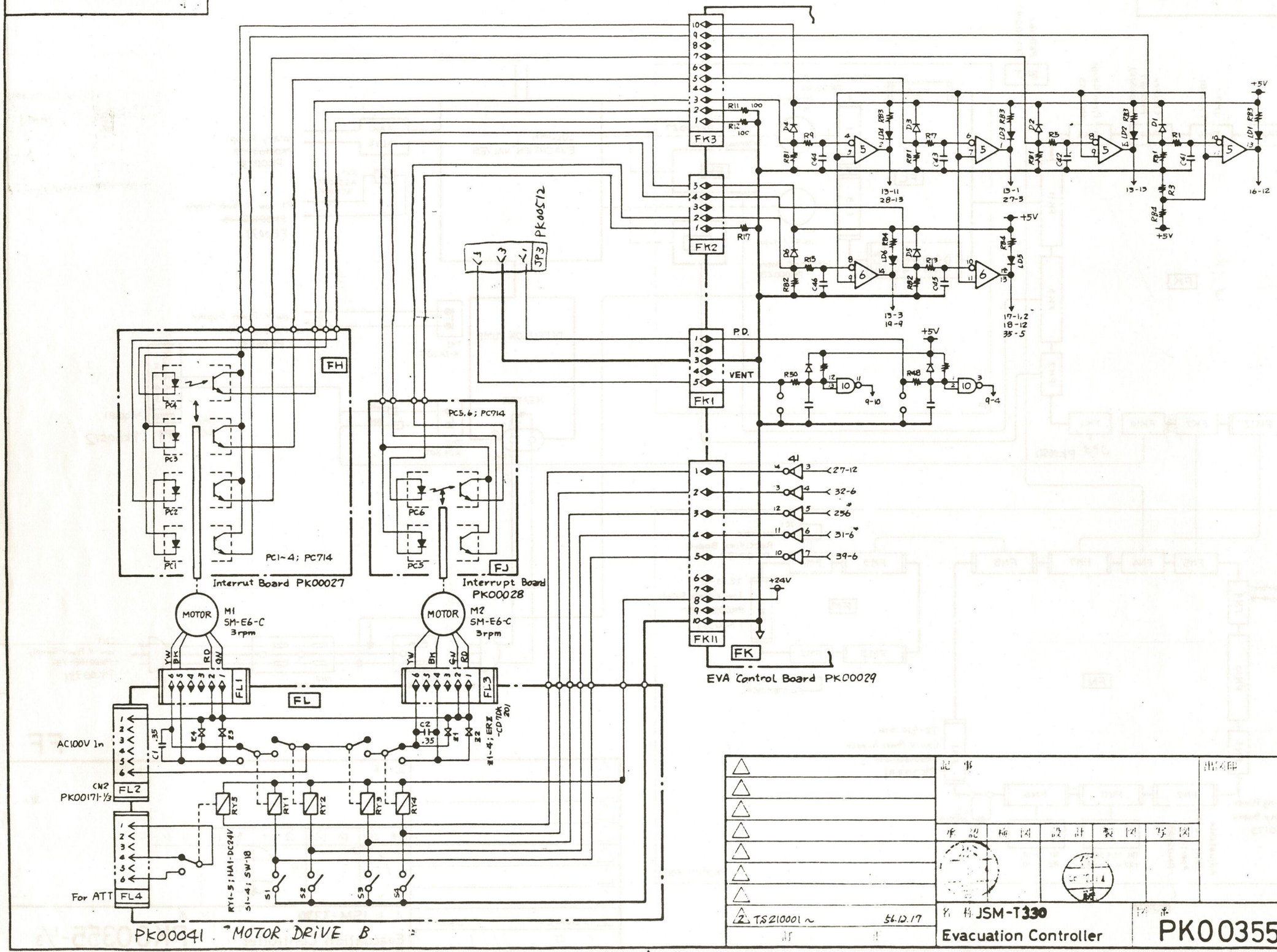
図面

名称 JSM-T330 Evacuation Controller

図番 PK00355-1/3

株式会社 日電子テクニクス

PK00355-2/3



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2 △ TS210001～	54.12.17					
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記事

承認	検図	設計	製図	写図

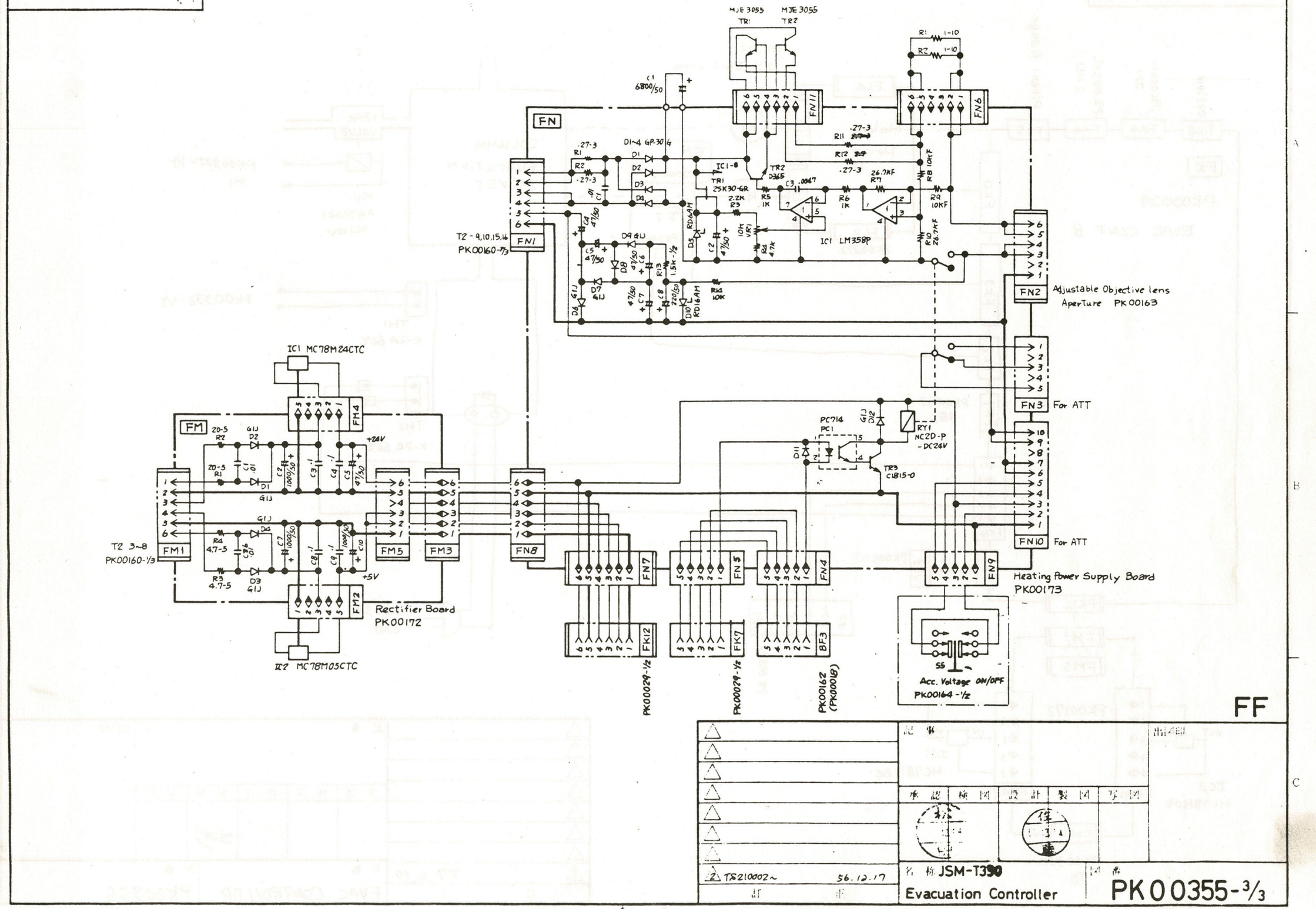
製図番

名称 JSM-T330 Evacuation Controller

図番 PK00355-2/3

株式会社 日電子テクニクス

PK00355-3/3

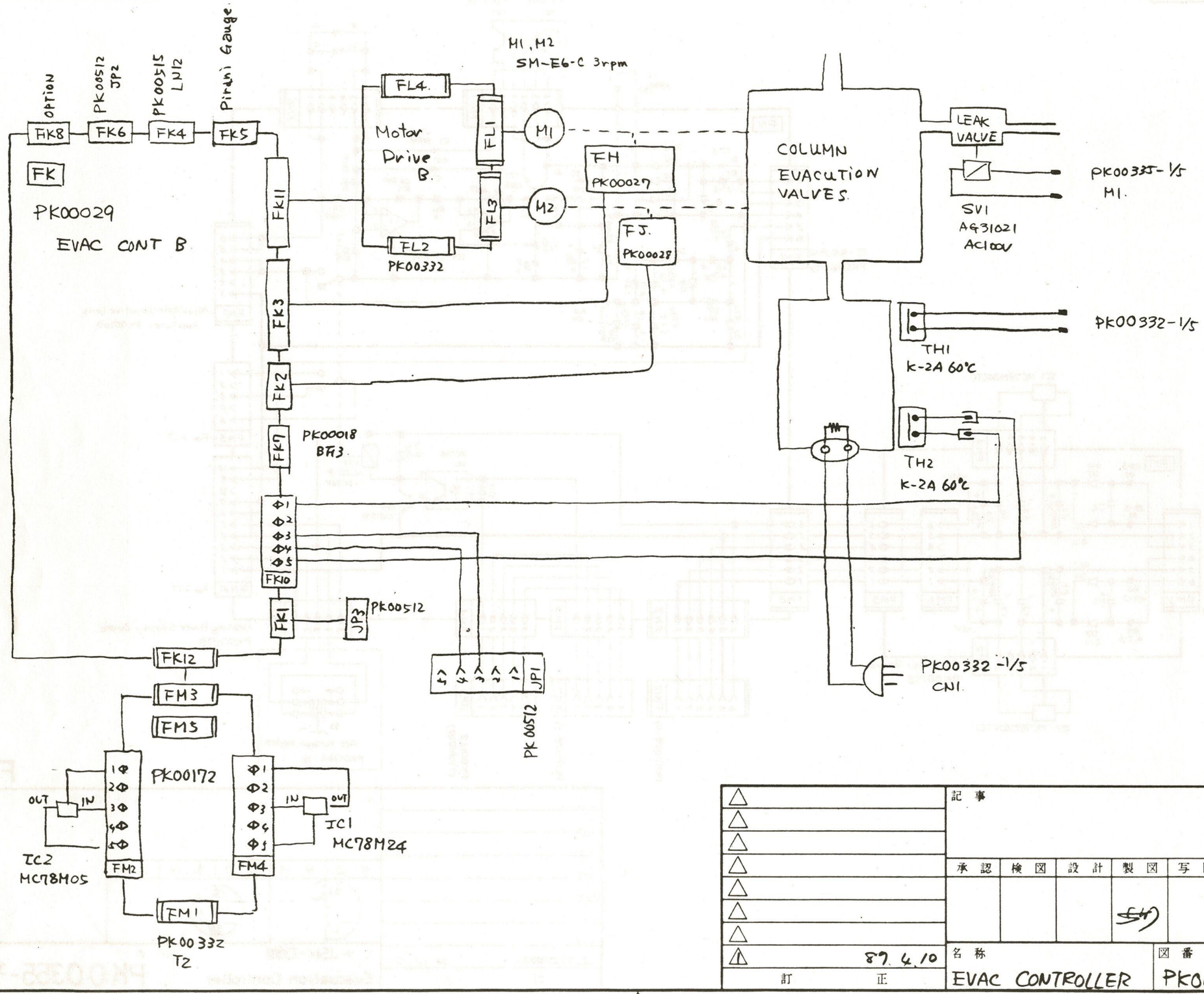


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2	TS210002~	56.12.17	承認	検図	設計 製図 写図
訂		非			

名称 JSM-T390
Evacuation Controller

図番 PK00355-3/3

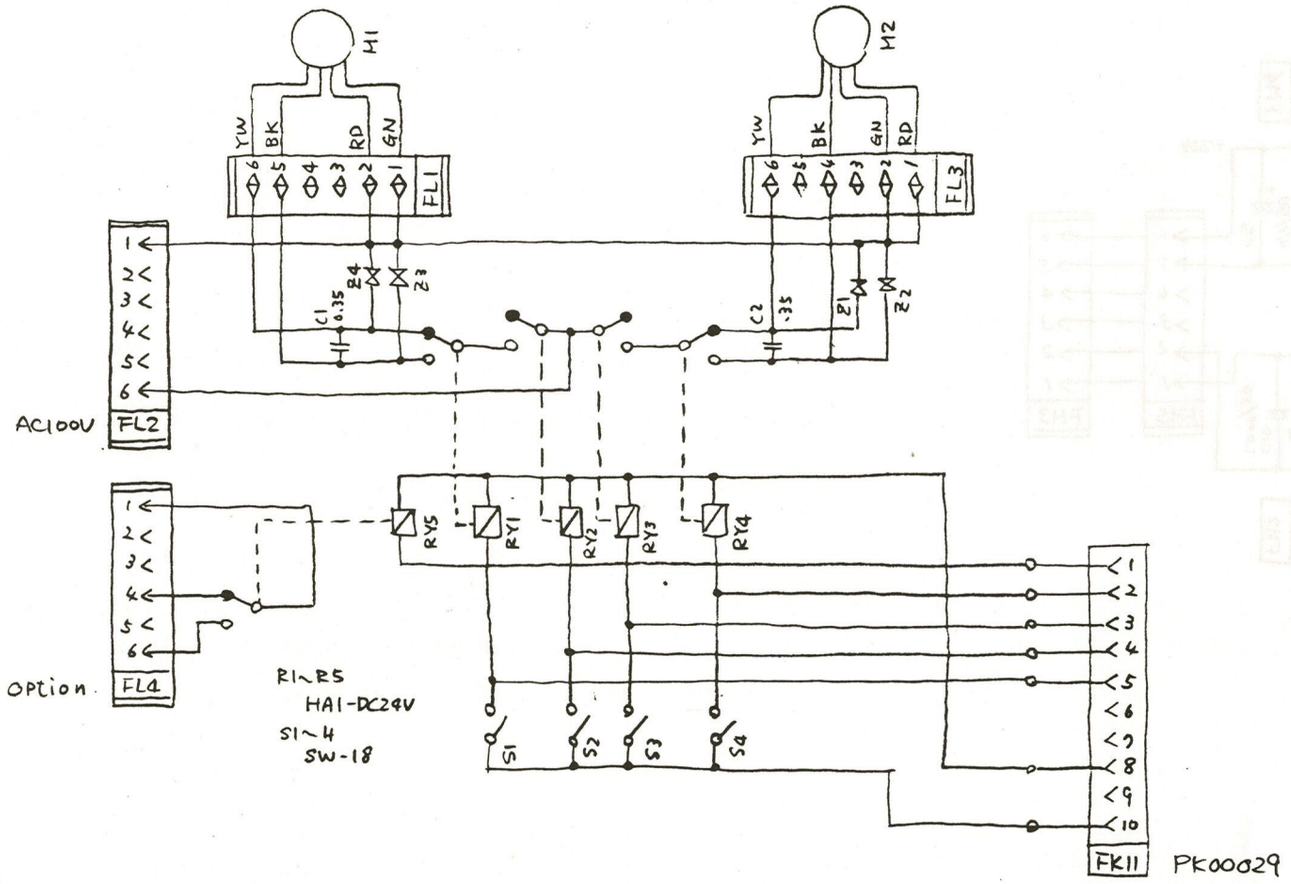
株式会社 日電子テクニクス



記事						出図印
承認	検図	設計	製図	写図		
訂正	87.4.10	名称	EVAC CONTROLLER	図番	PK00356	

株式会社 日電子テクニクス

Y 5027 A 3 (E) 51.7 1000



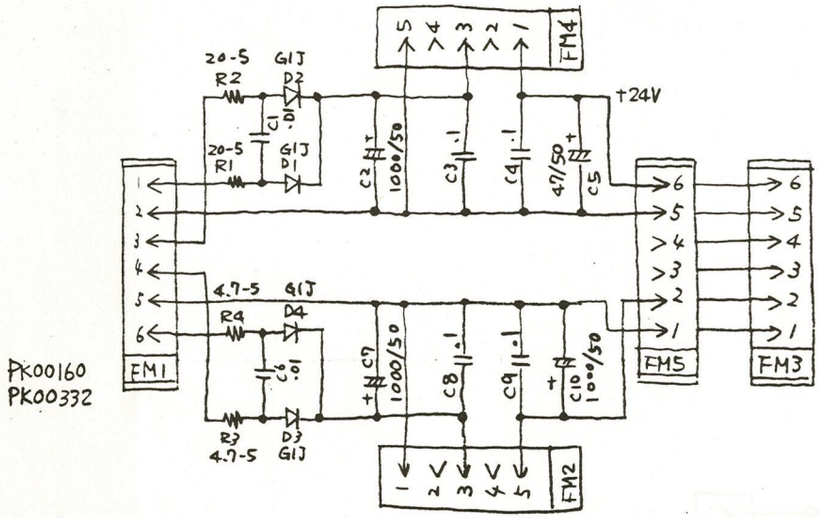
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訂 正						

記事					出図印
承認	検図	設計	製図	写図	
			土竹		

名称	図番
Motor Drive Board	PK00041

Y 5027 A 3 (E) 51.7 1000

株式会社 日電子テクニクス

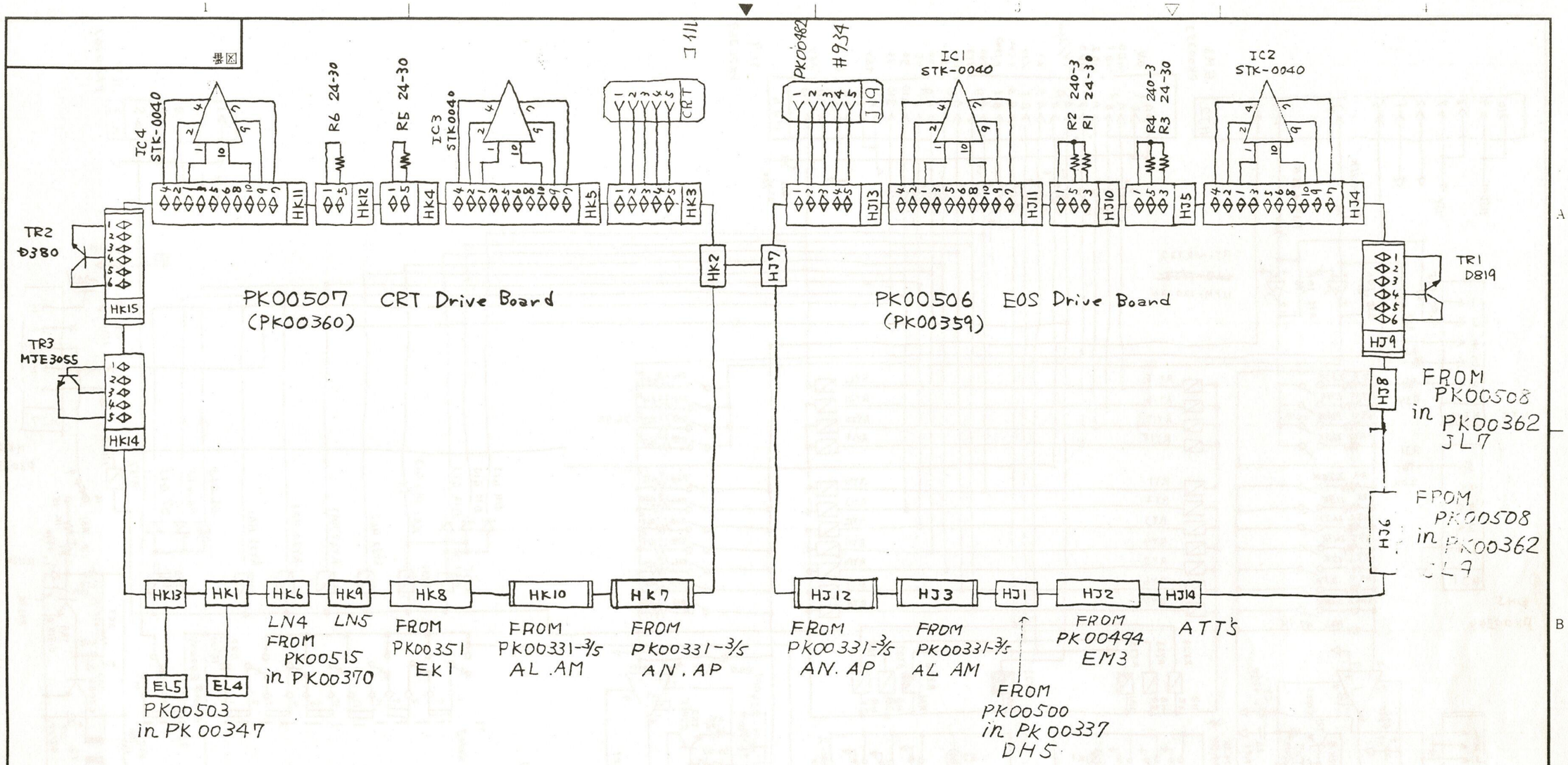


PK00160
PK00332

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⚠	88. 4.10	名称			図番	
訂	正	Rectifier Board			PK00172	

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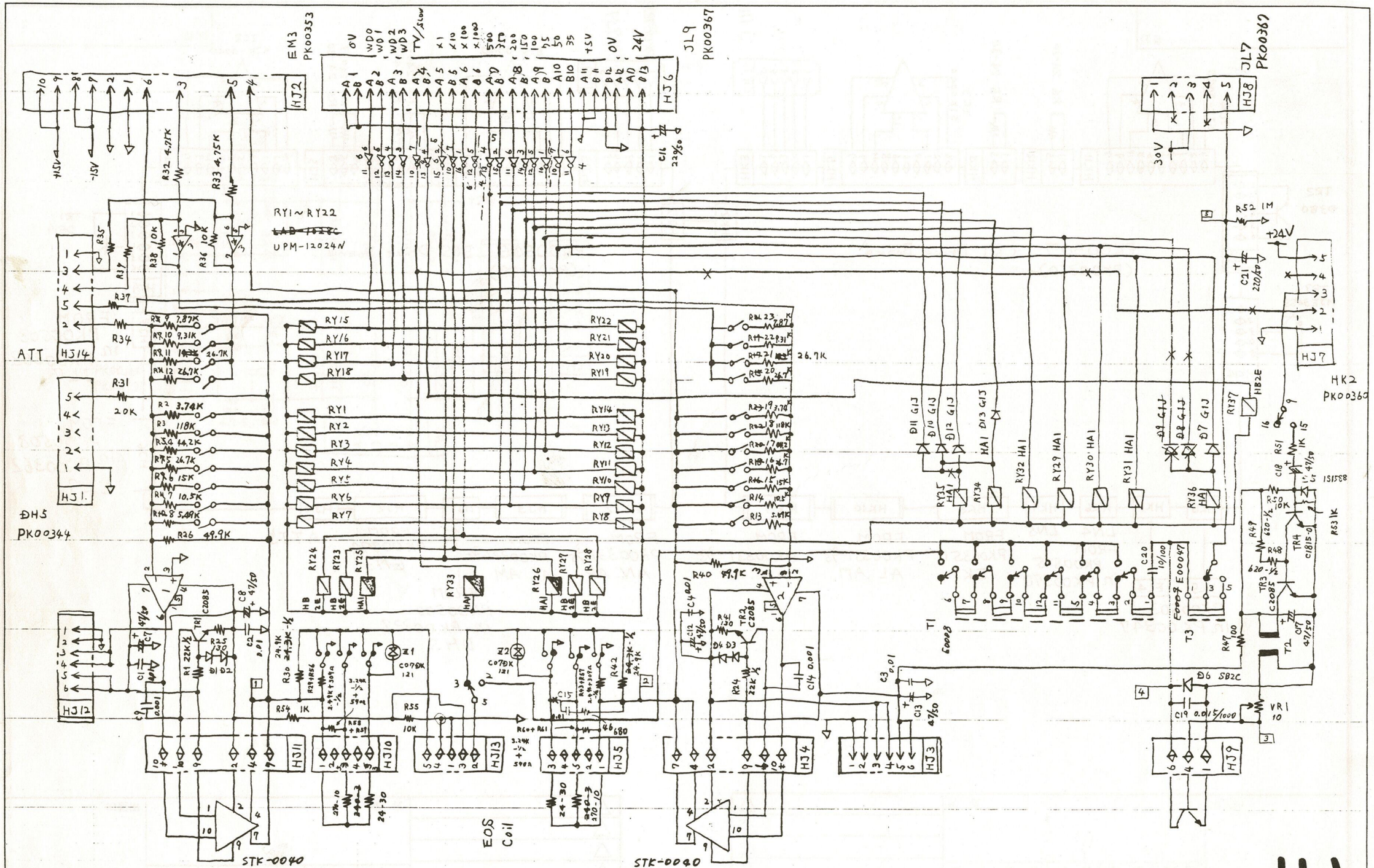
訂正	記事					出図印
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△	承認	検図	設計	製図	写図	
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HH

名称 T330	図番
Deflection Coil Driver	PK00355

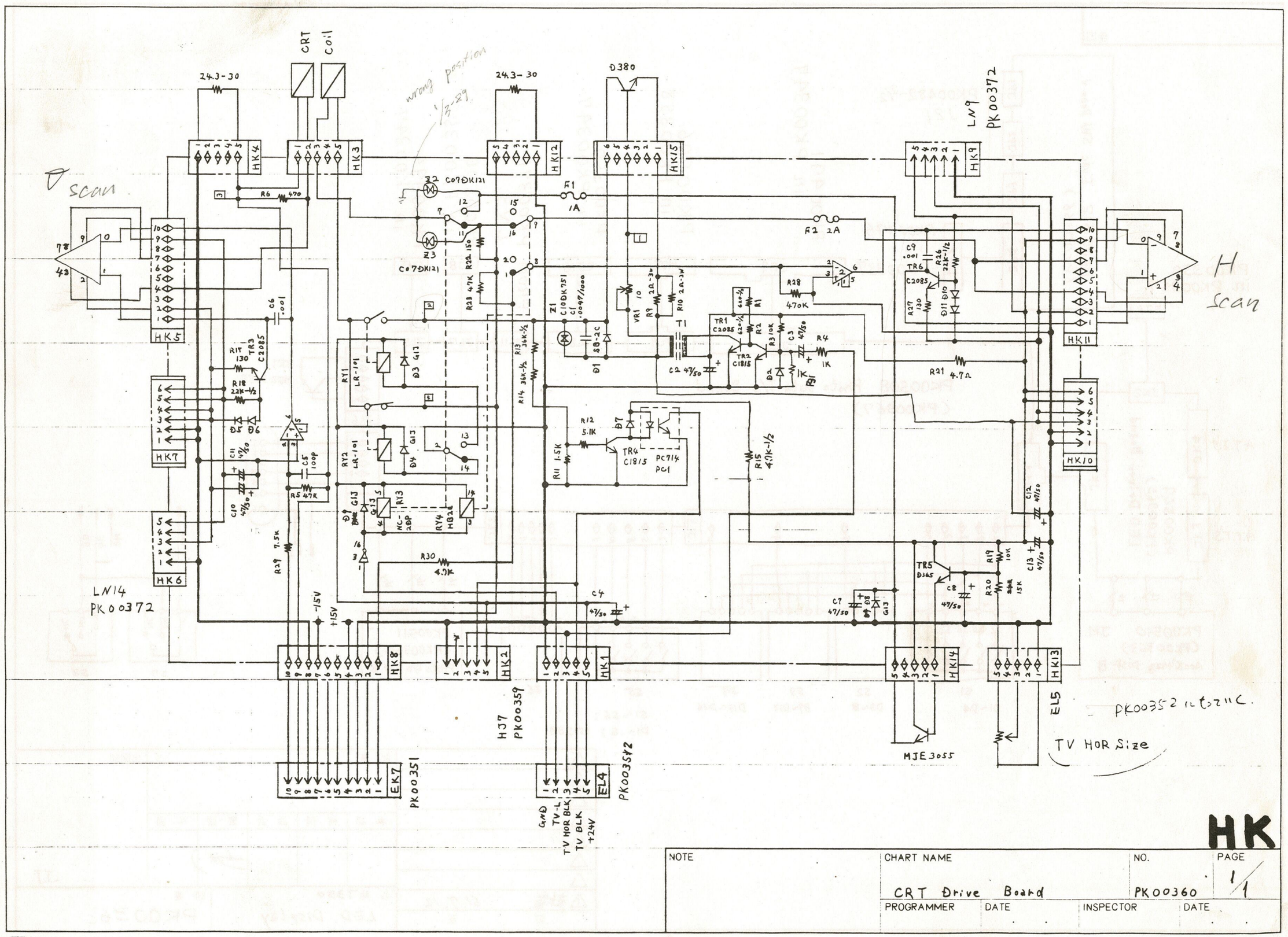
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FLOW CHART SHEET



NOTE	CHART NAME	NO.	PAGE
	EOS Drive Board	PK00359	
	PROGRAMMER / DATE	INSPECTOR / DATE	

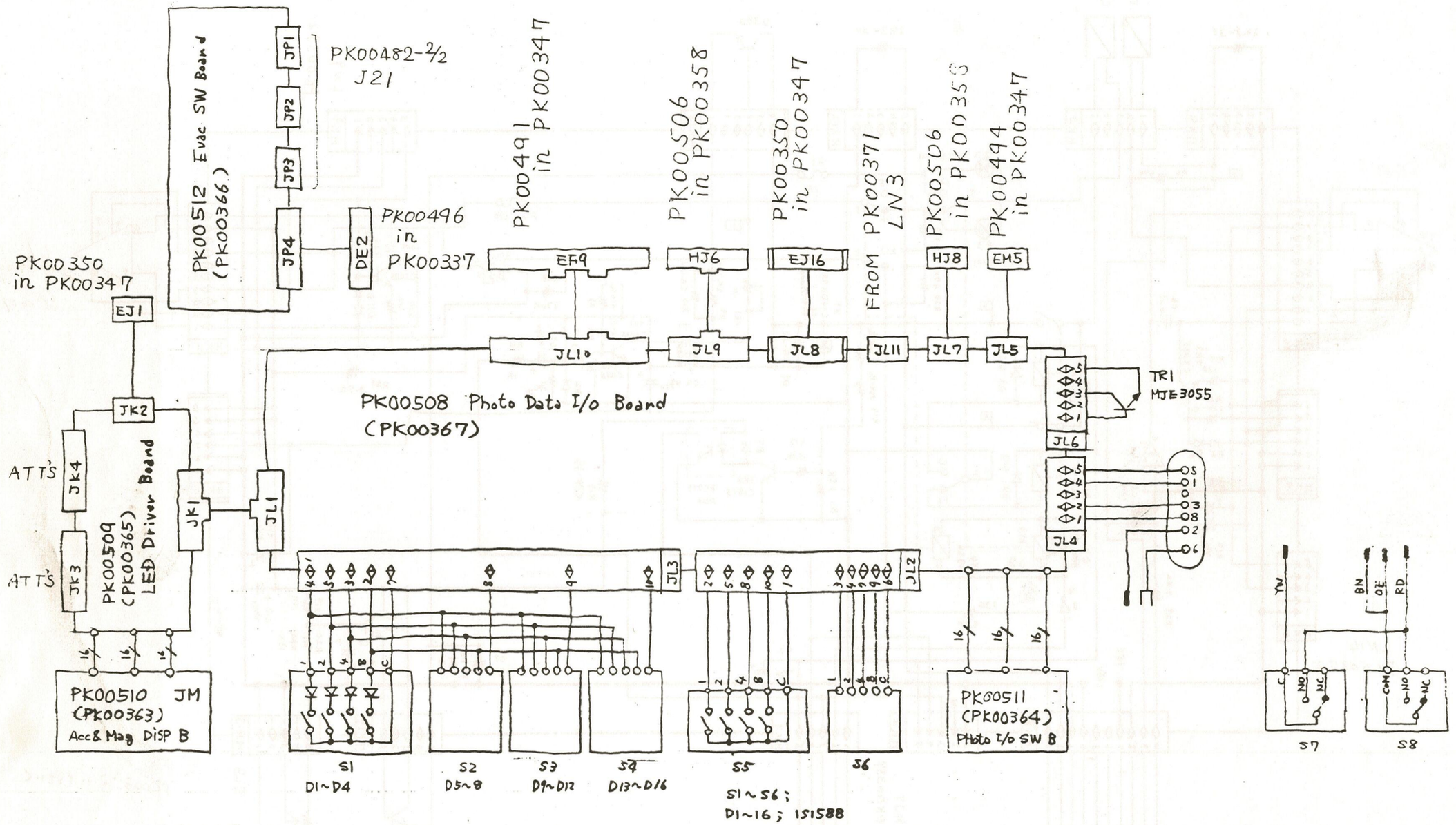
FLOWCHART-SHEET



NOTE	CHART NAME	NO.	PAGE
	CRT Drive Board	PK00360	1/1
	PROGRAMMER / DATE	INSPECTOR / DATE	

HK

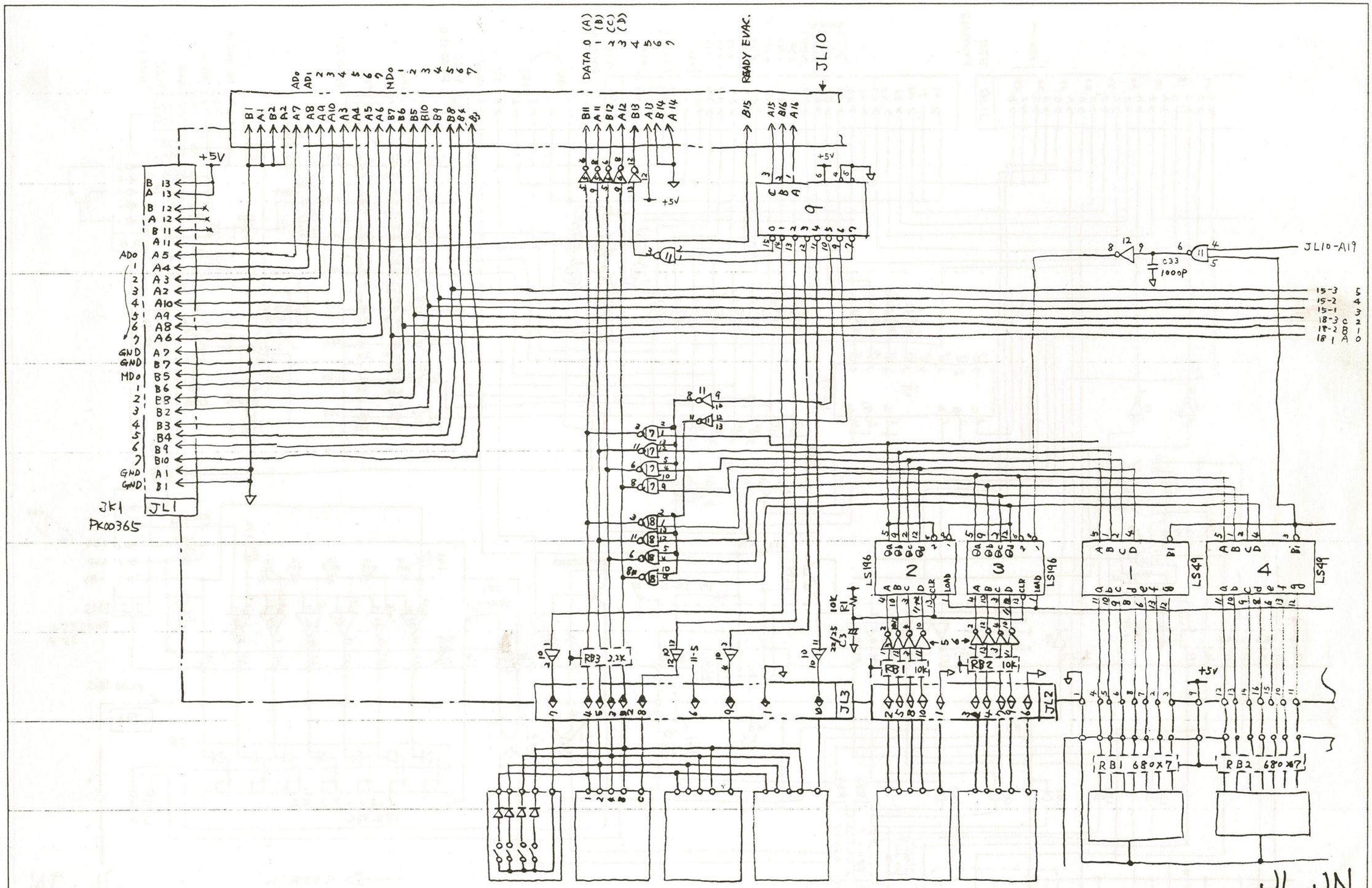
EX-8



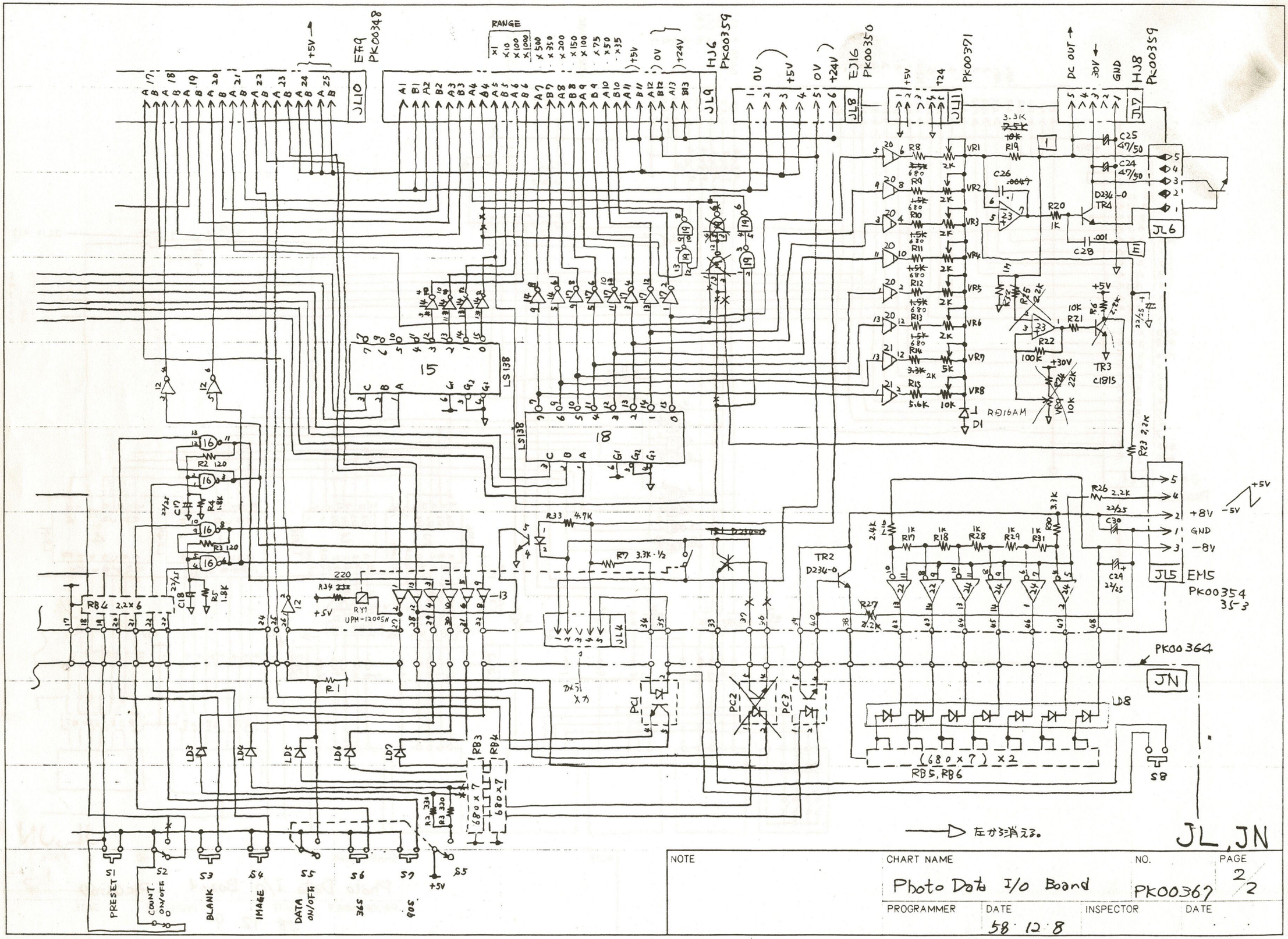
△		記事				出図印
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△		承認	検図	設計	製図	写図
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△						JJ
⚠ 新製	61.7.14	名称 T330 LED Display			図番 PK00362	
訂	正					

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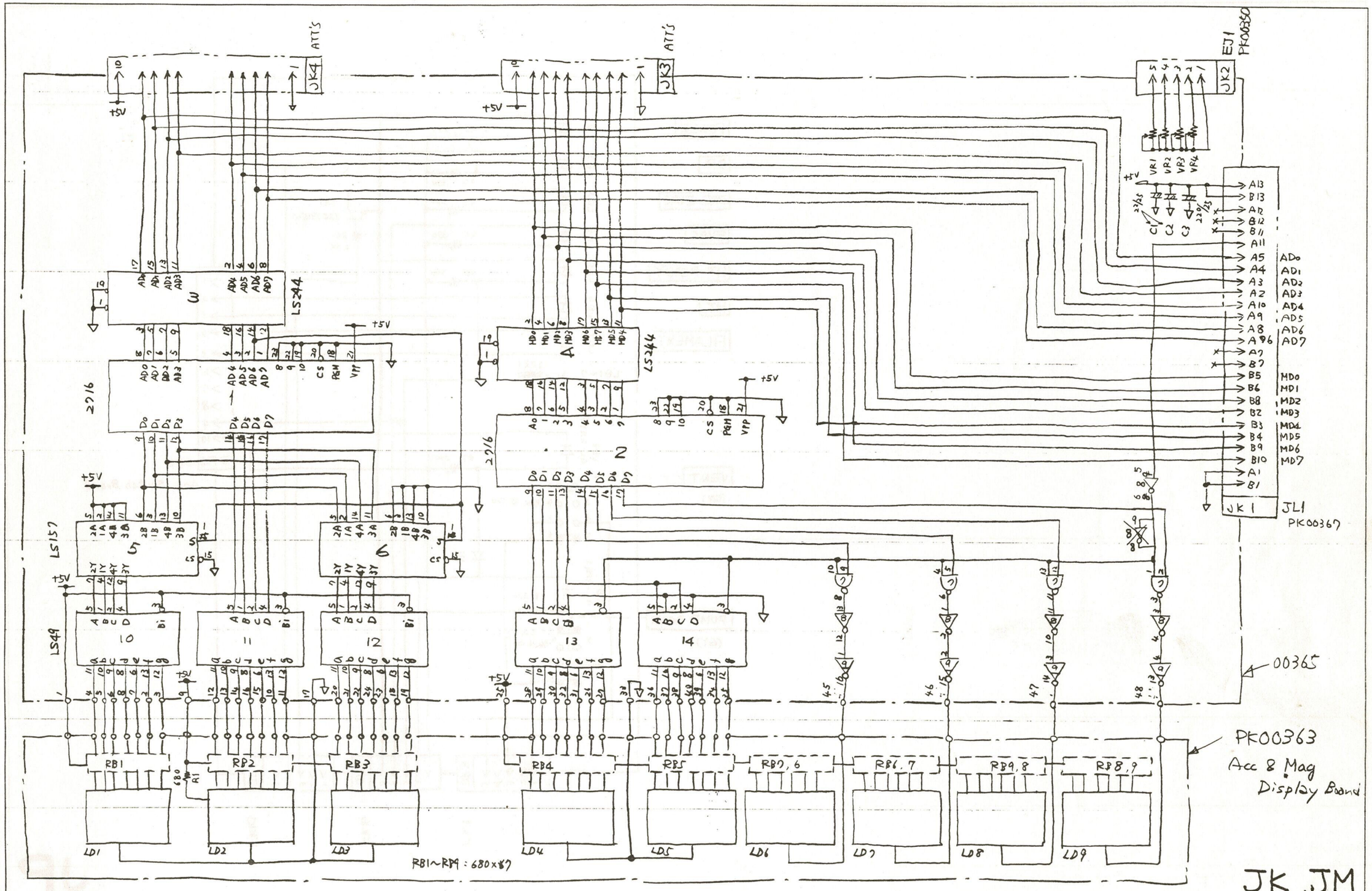
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NOTE	CHART NAME	NO.	PAGE
	Photo Data I/O Board	PK00367	1/2
	PROGRAMMER / DATE: 58·12·9 / INSPECTOR / DATE		

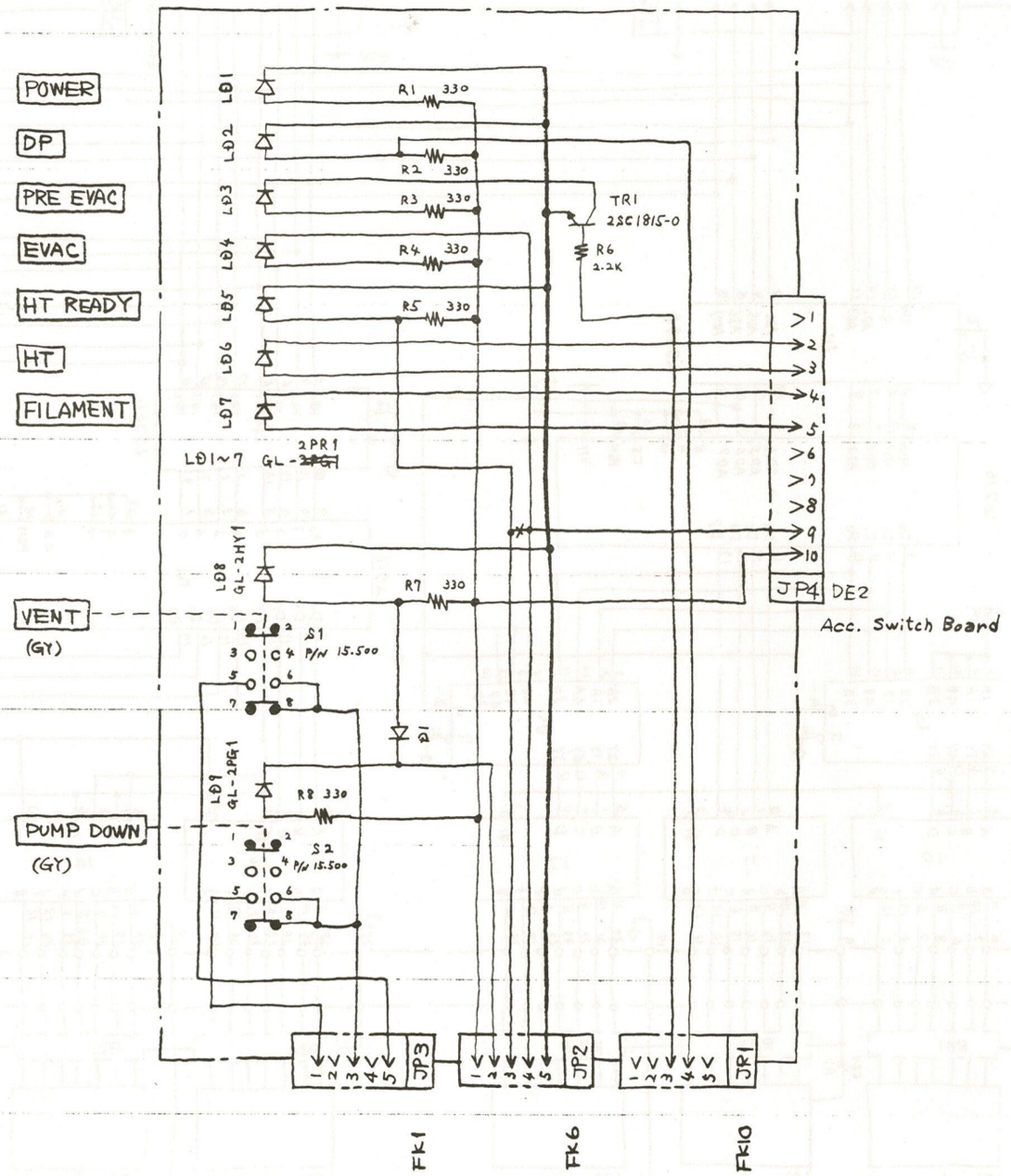


NOTE	CHART NAME	NO.	PAGE
	Photo Data I/O Board	PK00367	2/2
	PROGRAMMER / DATE: 58·12·8	INSPECTOR / DATE	



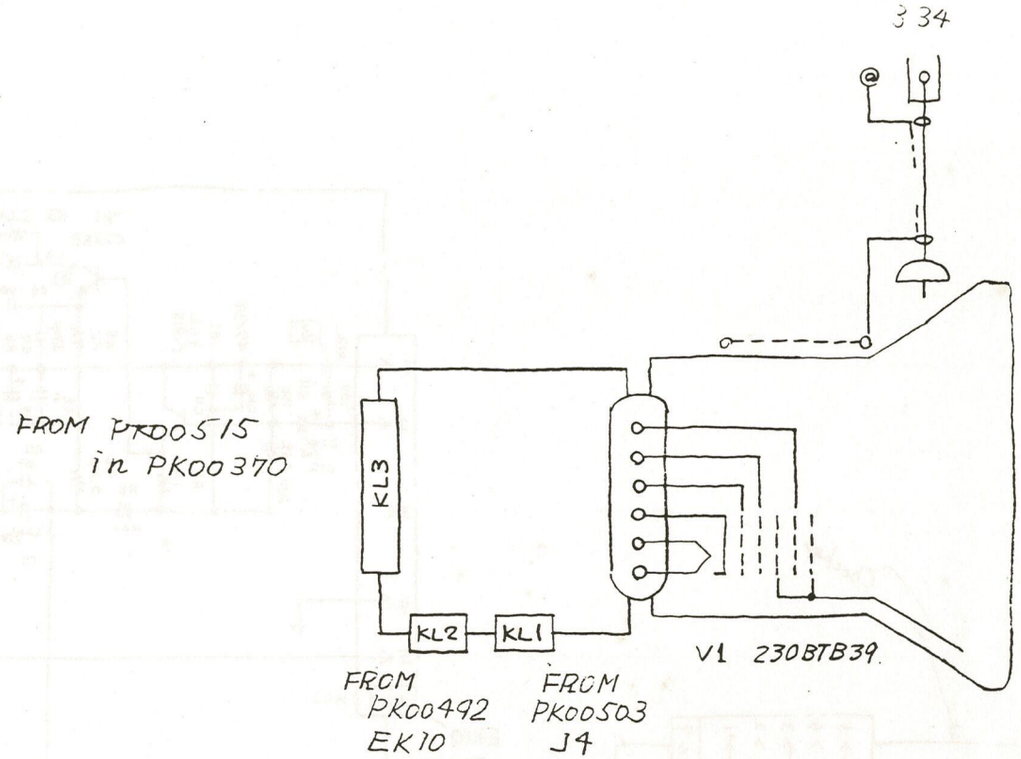
NOTE	CHART NAME	NO.	PAGE
	LED Driver Board	PK00365	1/1
	PROGRAMMER / DATE: 58·12·12	INSPECTOR / DATE	

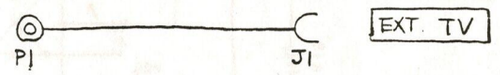
FLOWCHART-SHEET



JP

NOTE	CHART NAME	NO.	PAGE
	Evac. Switch Board	PK00366	
	PROGRAMMER / DATE: 58 · 11 · 18	INSPECTOR / DATE	

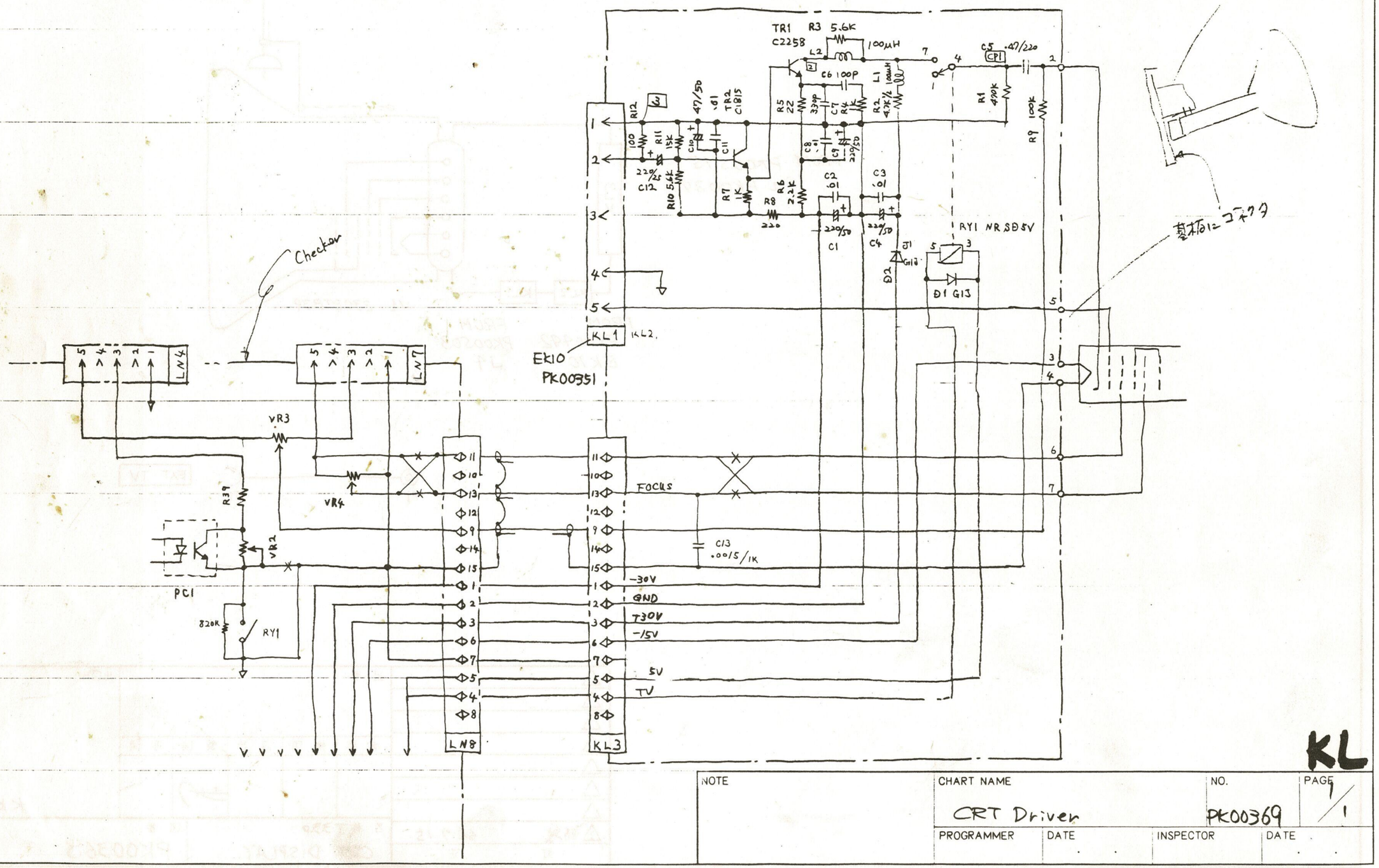




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⚠新製 61.7.15						
訂正						

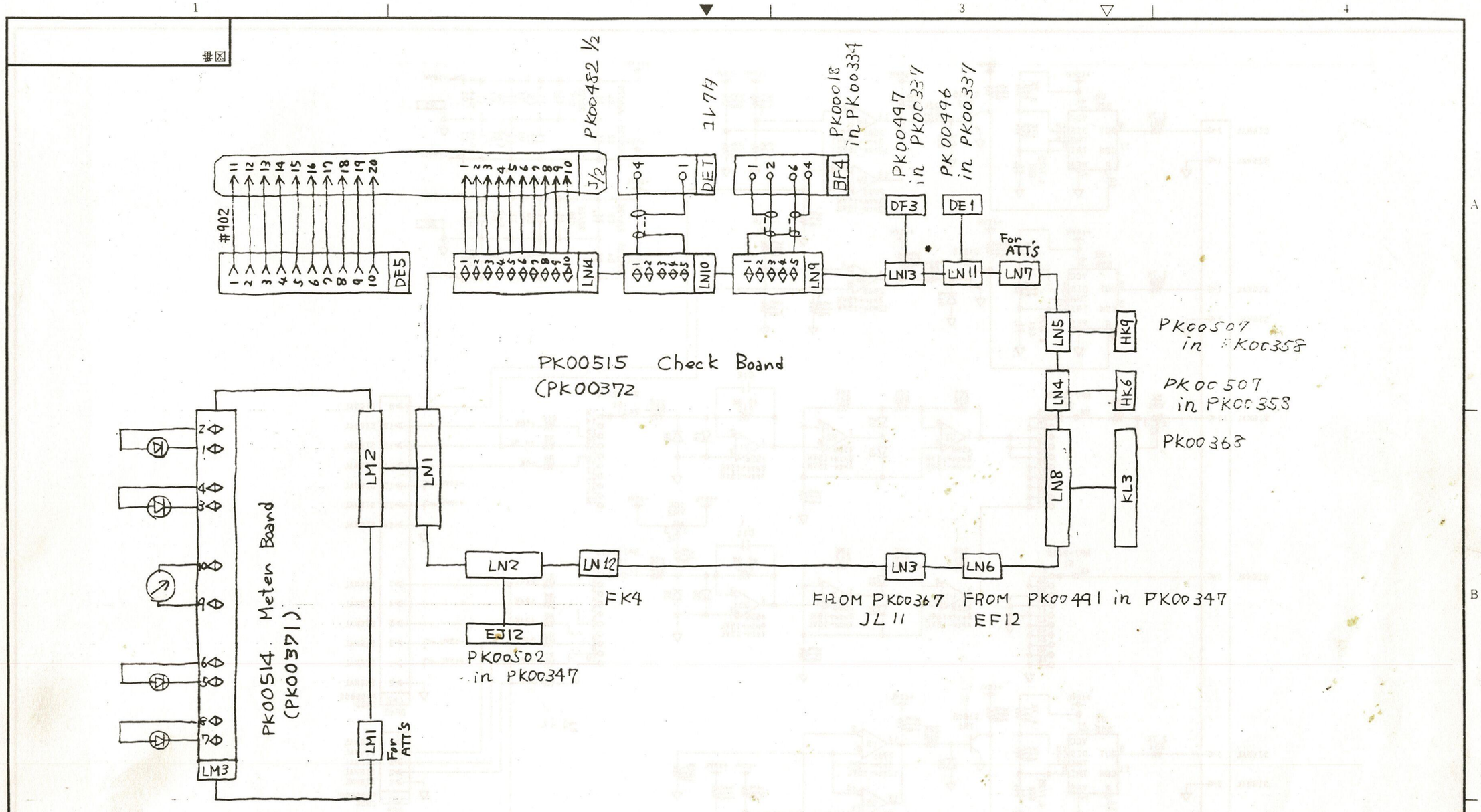
記事					出図印
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名称 T330 CRT DISPLAY.	図番 PK00368



NOTE	CHART NAME	NO.	PAGE
	CRT Driver	PK00369	1/1
	PROGRAMMER / DATE	INSPECTOR / DATE	

KL

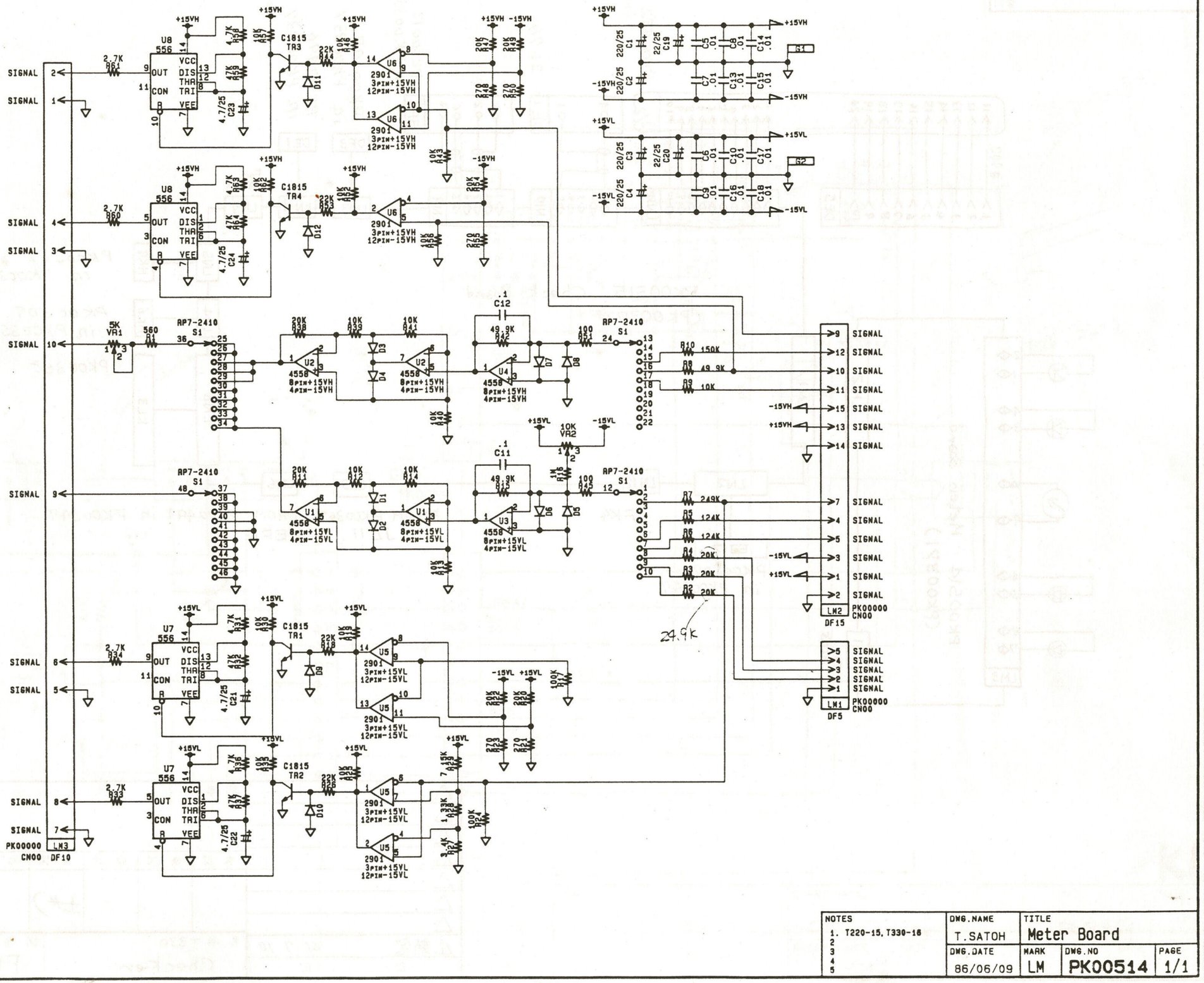


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⚠ 新製 61.7.14						
訂 正						

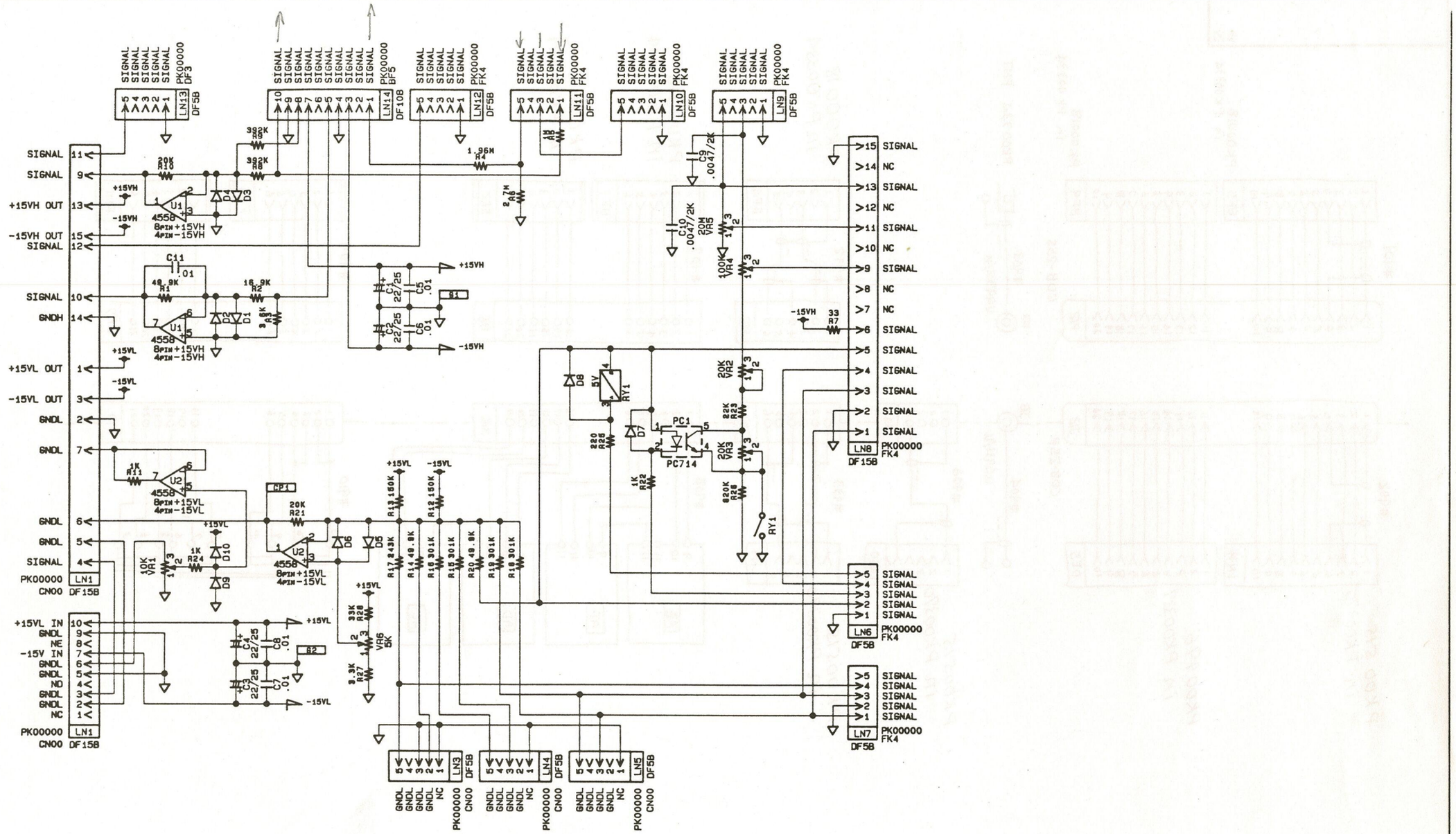
記事					出図印
承認	検図	設計	製図	写図	LL

名称 T330 Checker

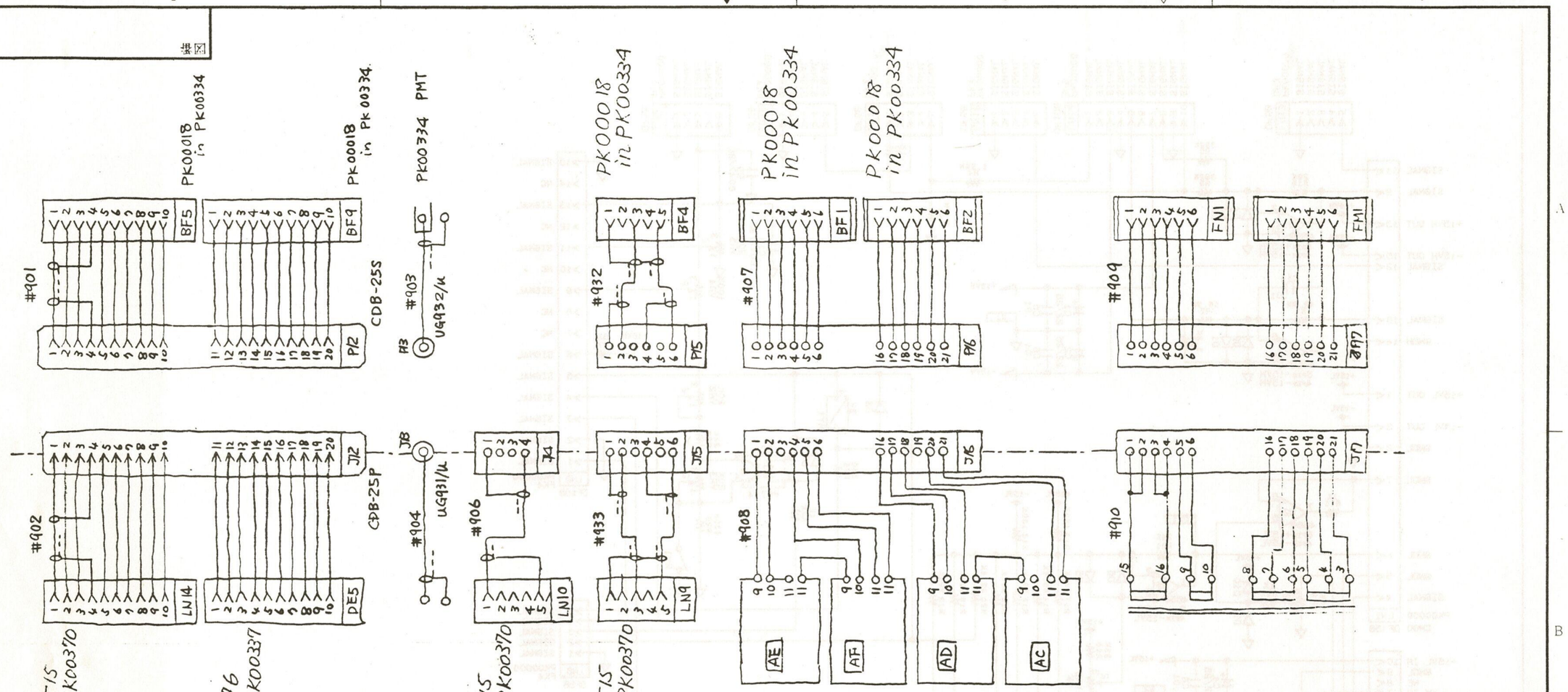
図番 PK00370



NOTES	DWG.NAME	TITLE		
1. T220-15, T330-16 2 3 4 5	T.SATOH	Meter Board		
	DWG.DATE	MARK	DWG.NO	PAGE
	86/06/09	LM	PK00514	1/1



NOTES	DWG.NAME	TITLE
1 86/07/02	T.SATOH	Check Board
2 3 4 5	DWG.DATE 86/02/22	MARK LN / DWG.NO PK00515 / PAGE 1/1



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⚠新製 61.7.15						
訂正						

記事

出図印

WW

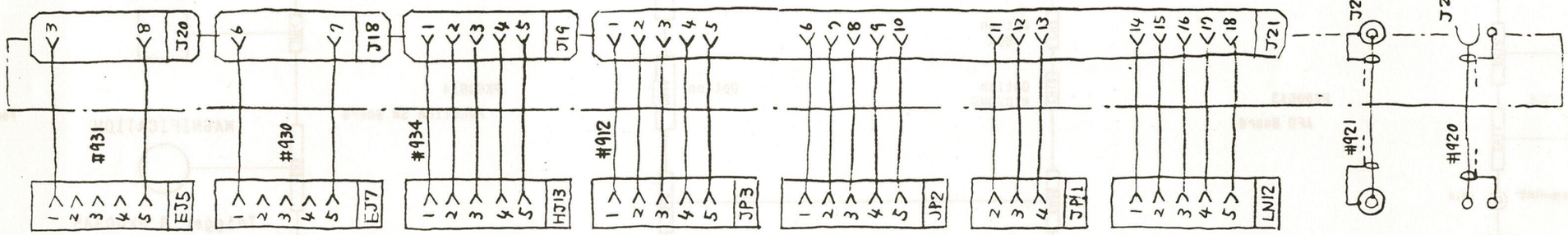
承認	検図	設計	製図	写図
			七9	

名称 T330 Connector Panel

図番 PK00485-1/2

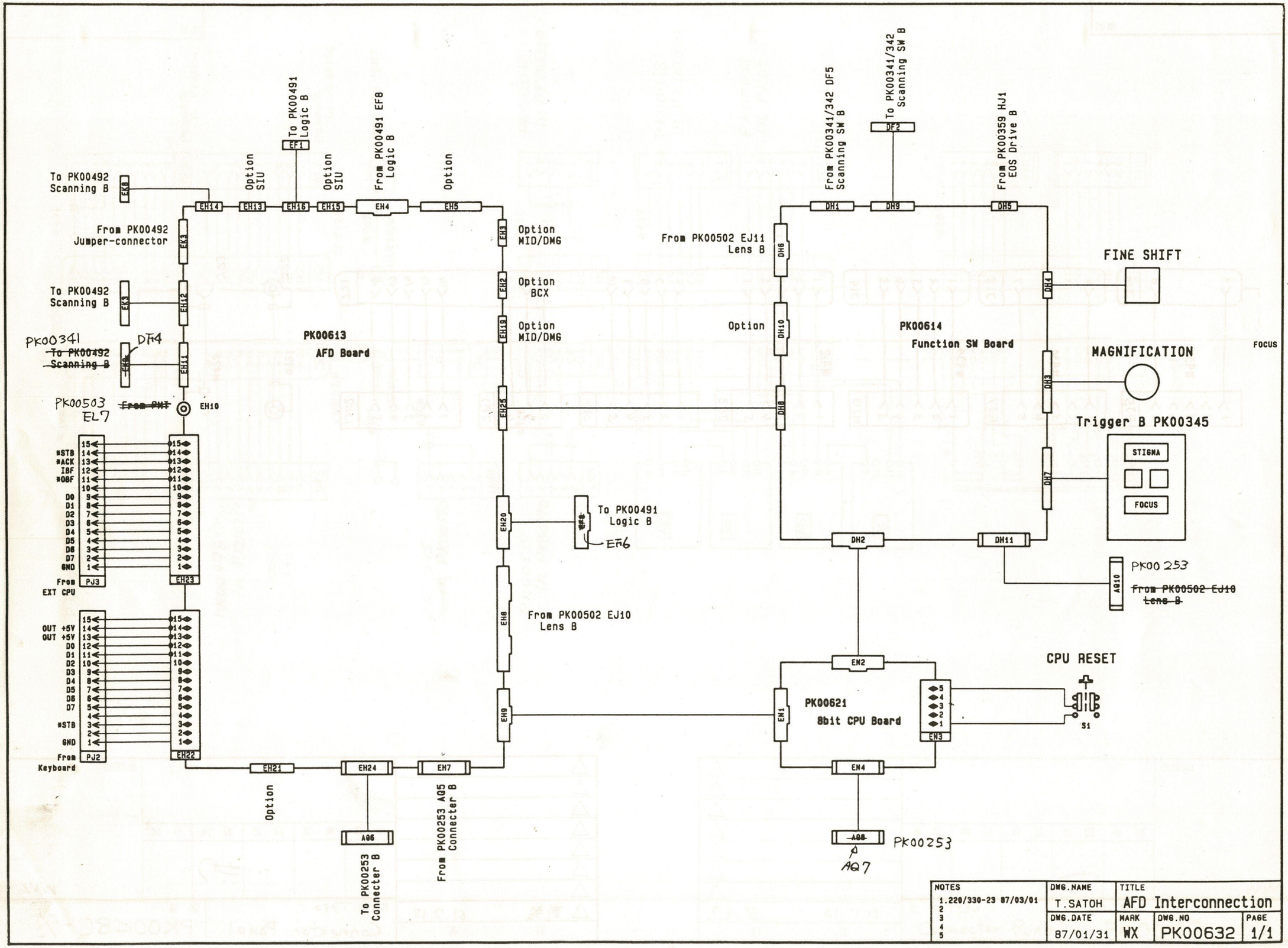
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⚠1 訓気	61.7.15					WW
訂	正	名称 T330 Connector Panel			図番 PK00482-2/2	

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NOTES	DWG.NAME	TITLE			
1.220/330-23 87/03/01 2 3 4 5	T.SATOH	AFD Interconnection			
	DWG.DATE	MARK	DWG.NO	PAGE	
	87/01/31	WX	PK00632	1/1	