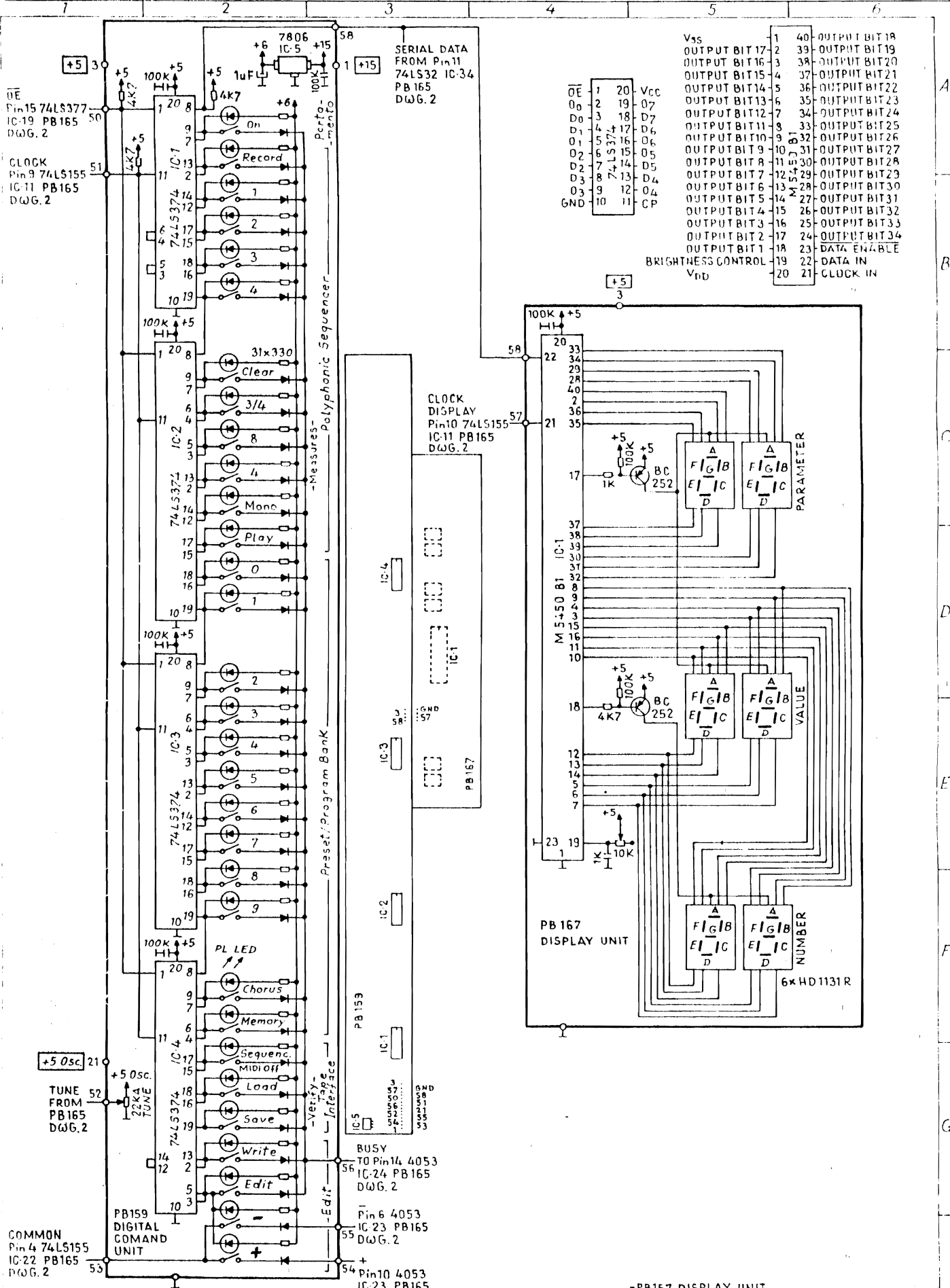




SOLTON PROJECT 100 SCHEMATICS

FREE ITEM - DO NOT PAY FOR THIS!

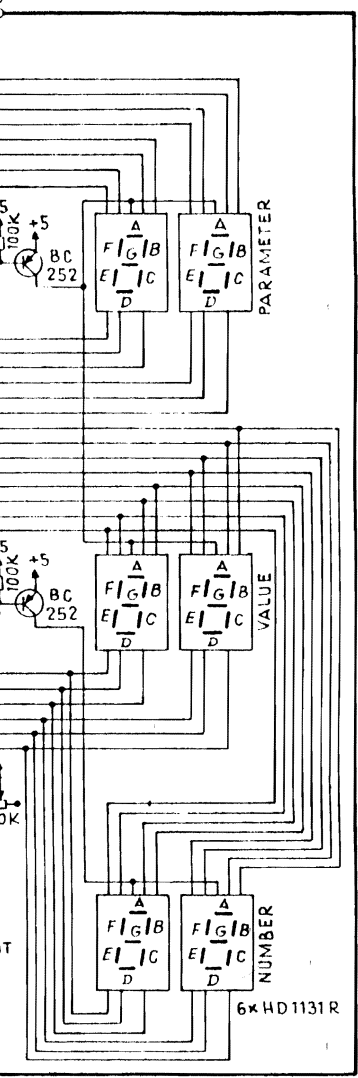
PLEASE VISIT THE PROJECT 100
DEDICATED CENTER



V _{SS}	1	40	OUTPUT BIT 18
OUTPUT BIT 17	2	39	OUTPUT BIT 19
OUTPUT BIT 16	3	38	OUTPUT BIT 20
OUTPUT BIT 15	4	37	OUTPUT BIT 21
OUTPUT BIT 14	5	36	OUTPUT BIT 22
OUTPUT BIT 13	6	35	OUTPUT BIT 23
OUTPUT BIT 12	7	34	OUTPUT BIT 24
OUTPUT BIT 11	8	33	OUTPUT BIT 25
OUTPUT BIT 10	9	32	OUTPUT BIT 26
OUTPUT BIT 9	10	31	OUTPUT BIT 27
OUTPUT BIT 8	11	30	OUTPUT BIT 28
OUTPUT BIT 7	12	29	OUTPUT BIT 29
OUTPUT BIT 6	13	28	OUTPUT BIT 30
OUTPUT BIT 5	14	27	OUTPUT BIT 31
OUTPUT BIT 4	15	26	OUTPUT BIT 32
OUTPUT BIT 3	16	25	OUTPUT BIT 33
OUTPUT BIT 2	17	24	OUTPUT BIT 34
OUTPUT BIT 1	18	23	DATA ENABLE
	19	22	DATA IN
	20	21	CLOCK IN

OE	1	20	VCC
O ₀	2	19	O ₇
D ₀	3	18	D ₇
D ₁	4	17	D ₆
O ₁	5	16	O ₆
O ₂	6	15	O ₅
D ₂	7	14	D ₅
O ₃	8	13	D ₄
D ₃	9	12	O ₄
GND	10	11	CP

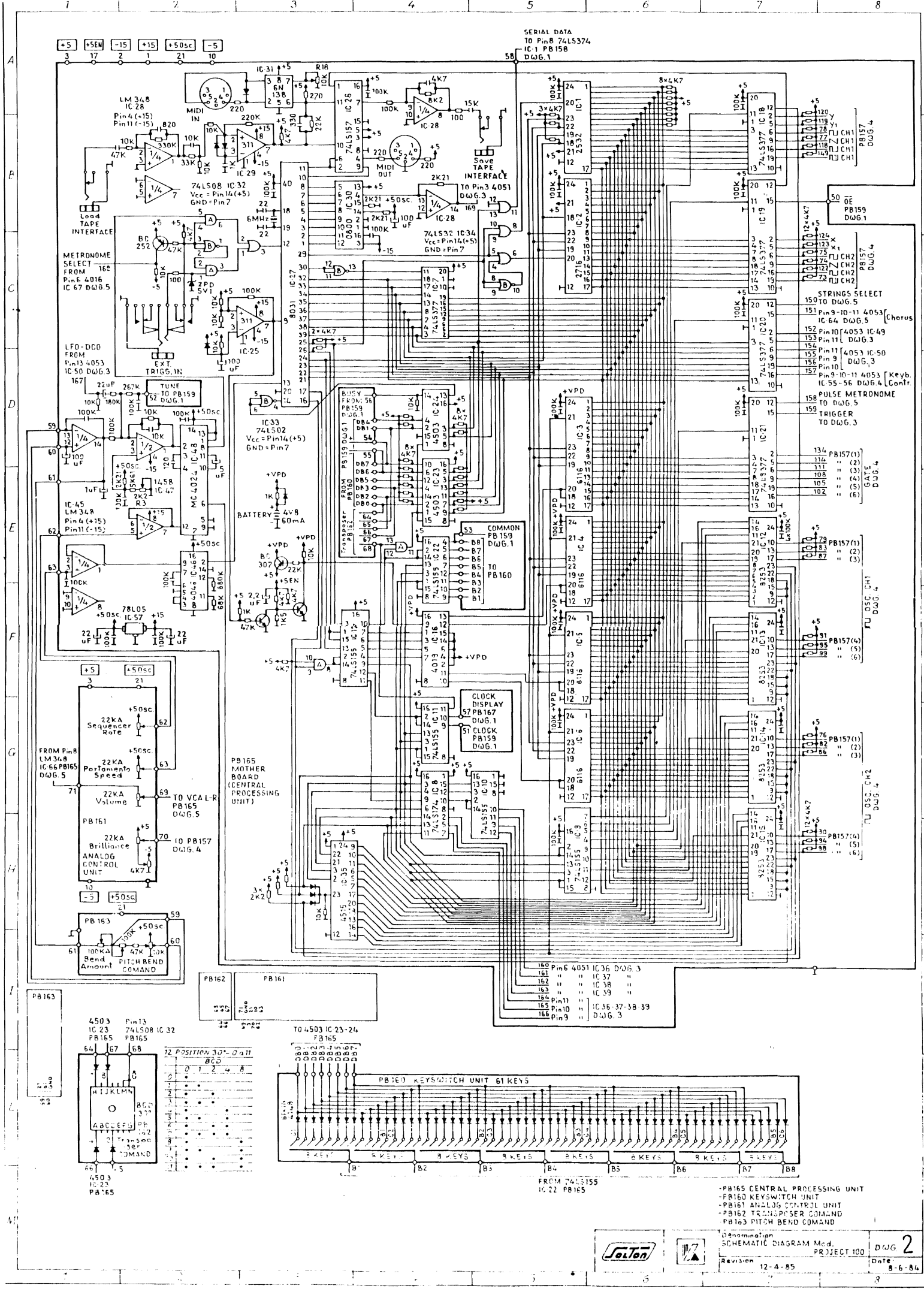
BRIGHTNESS CONTROL
V_{DD}



-PB167 DISPLAY UNIT
-PB159 DIGITAL COMMAND UNIT

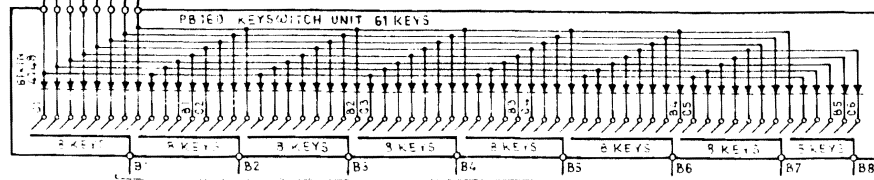
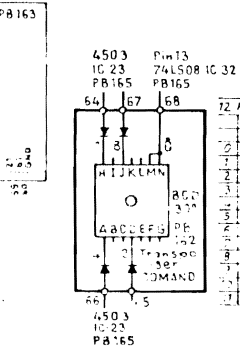
Denomination:	SCHEMATIC DIAGRAM	Mod. PROJECT 100	DWG. 1
Revision:	21-9-84	18-10-84	date: 8-6-84





SERIAL DATA
TO Pin 8 74LS374
IC-1 PB158
DWG.1

+5 17 2 21 10
+5sc -5



FROM 74LS155
IC-22 PB165

- PB165 CENTRAL PROCESSING UNIT
- PB160 KEYSWITCH UNIT
- PB161 ANALOG CONTROL UNIT
- PB162 TRANSPONDER COMMAND
- PB163 PITCH BEND COMMAND



Denomination
SCHEMATIC DIAGRAM Mod. PROJECT 100
Revision 12-4-85 Date 8-6-84

DWG 2

A
B
C
D
E
F
G
H

P1.0	1	40	V _{CC}
P1.1	2	39	PO.0 AD0
P1.2	3	38	PO.1 AD1
P1.3	4	37	PO.2 AD2
P1.4	5	36	PO.3 AD3
P1.5	6	35	PO.4 AD4
P1.6	7	34	PO.5 AD5
P1.7	8	33	PO.6 AD6
RST/VPD	9	32	PO.7 AD7
RXD P3.0	10	31	EA
TXD P3.1	11	30	ALE
INT0 P3.2	12	29	PSEN
INT1 P3.3	13	28	P2.7 A15
T0 P3.4	14	27	P2.6 A14
T1 P3.5	15	26	P2.5 A13
WR P3.6	16	25	P2.4 A12
RD P3.7	17	24	P2.3 A11
XTAL2	18	23	P2.2 A10
XTAL1	19	22	P2.1 A9
V _{SS}	20	21	P2.0 A8

STROBE	1	24	V _{DD}
DATA1	2	23	INHIBIT
DATA2	3	22	DATA 4
S7	4	21	DATA 3
S6	5	20	S10
S5	6	19	S11
S4	7	18	S8
S3	8	17	S9
S1	9	16	S14
S2	10	15	S15
S0	11	14	S12
V _{SS}	12	13	S13

A7	1	24	V _{CC}
A6	2	23	A8
A5	3	22	A9
A4	4	21	V _{PP}
A3	5	20	CE
A2	6	19	A10
A1	7	18	A11
A0	8	17	O7
O0	9	16	O6
O1	10	15	O5
O2	11	14	O4
GND	12	13	O3

D7	1	24	V _{CC}
D6	2	23	WR
D5	3	22	RD
D4	4	21	CS
D3	5	20	A1
D2	6	19	A0
D1	7	18	CLK 2
D0	8	17	OUT 2
CLK0	9	16	GATE 2
OUT0	10	15	CLK 1
GATE0	11	14	GATE 1
GND	12	13	OUT 1

THRESHOLD CONTROL V _{LC}	1	16	COMPENSATION
I _{OUT}	2	15	V _{REF(-)}
V ₋	3	14	V _{REF(+)}
I _{OUT}	4	13	V ₊
MSB B1	5	12	B8 LSB
B2	6	11	B7
B3	7	10	B6
B4	8	9	B5

DISABLE A	1	16	V _{DD}
D1	2	15	DISABLE B
Q1	3	14	D6
D2	4	13	Q6
Q2	5	12	D5
D3	6	11	Q5
Q3	7	10	D4
V _{SS}	8	9	Q4

A7	1	24	V _{CC}
A6	2	23	A8
A5	3	22	A9
A4	4	21	V _{PP}
A3	5	20	OE
A2	6	19	A10
A1	7	18	CE
A0	8	17	O7
O0	9	16	O6
O1	10	15	O5
O2	11	14	O4
GND	12	13	O3

A7	1	24	V _{DD}
A6	2	23	A8
A5	3	22	A9
A4	4	21	RW
A3	5	20	CE ₁
A2	6	19	A10
A1	7	18	CE ₂
A0	8	17	I/O ₈
I/O1	9	16	I/O ₇
I/O2	10	15	I/O ₆
I/O3	11	14	I/O ₅
GND	12	13	I/O ₄

V _{CC} (VCM) (13)	1	14	V _{CC} (OUT BUFFER)
DC CONTROL IN (12)	2	13	
C _x X2 (11)	3	12	
C _x X1 (10)	4	11	
GND (VCM) (9)	5	10	
OUT (8)	6	9	
GND (OUT BUFFER)	7	8	

B4	1	16	V _{DD}
A3	2	15	A4
B3	3	14	Kb
A2	4	13	D4=A4Ka=B4Kb
B2	5	12	D3=A3Ka=B3Kb
A1	6	11	D2=A2Ka=B2Kb
B1	7	10	D1=A1Ka=B1Kb
V _{SS}	8	9	Ka

S	1	16	V _{CC}
I _{0a}	2	15	E
I _{1a}	3	14	I _{0c}
Z _a	4	13	I _{1c}
I _{0b}	5	12	Z _c
I _{1b}	6	11	I _{0d}
Z _b	7	10	I _{1d}
GND	8	9	Z _d



NC	1	8	V _{CC}
ANODE	2	7	V _b
CATHODE	3	6	V ₀
NC	4	5	GND

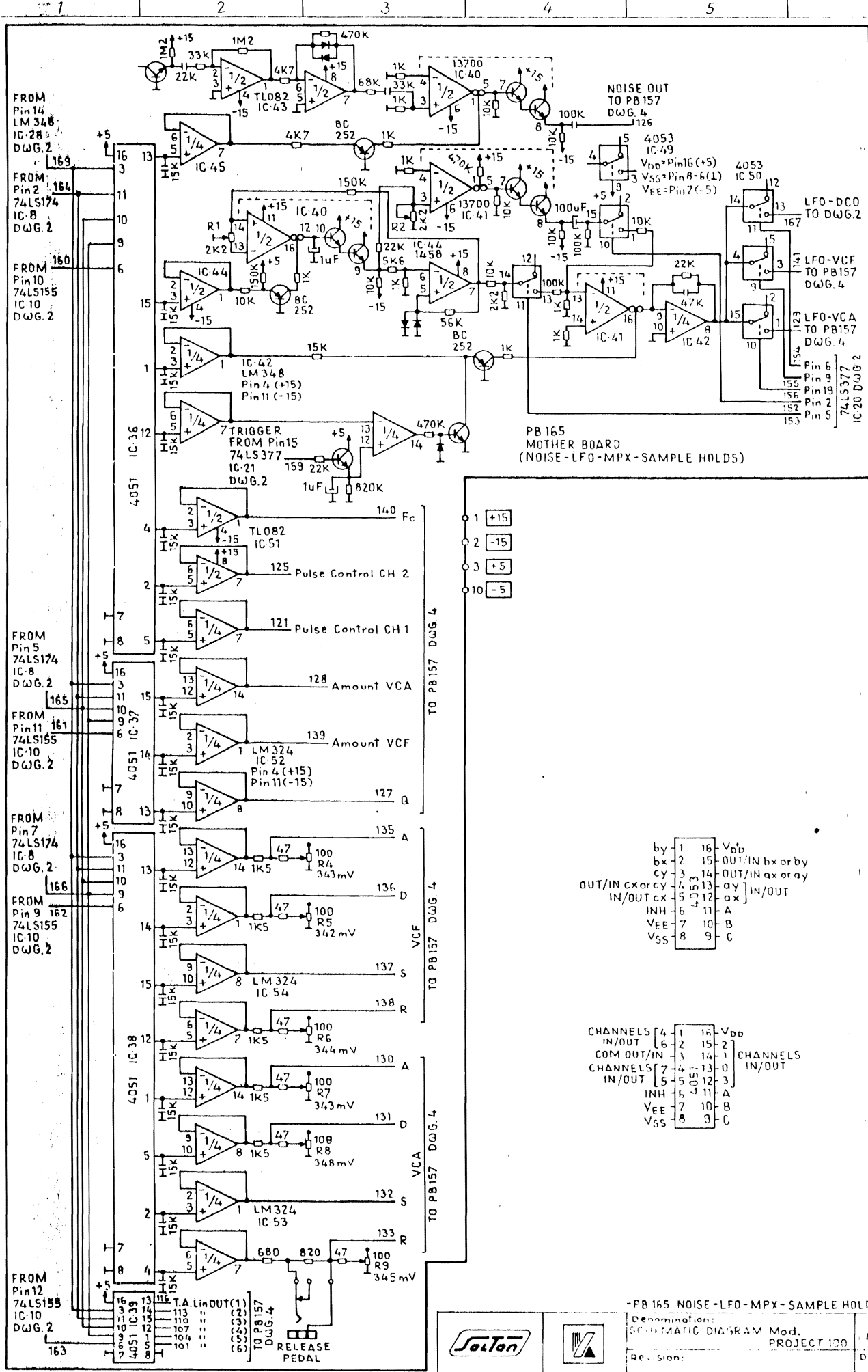
E _a	1	16	V _{CC}
E _b	2	15	E _b
A ₁	3	14	E _b
O _{3a}	4	13	A ₀
O _{2a}	5	12	O _{3b}
O _{1a}	6	11	O _{2b}
O _{0a}	7	10	O _{1b}
GND	8	9	O _{0b}

PHASE PULSES	1	16	V _{DD}
PHASE COMP. I OUT	2	15	ZENER
COMPARATOR IN	3	14	SIGNAL IN
VCO OUT	4	13	PHASE COMP. II OUT
INHIBIT	5	12	R2 TO V _{SS}
C1	6	11	R1 TO V _{SS}
C2	7	10	DEMODULATOR OUT
V _{SS}	8	9	VCO IN

MR	1	16	V _{CC}
Q ₀	2	15	Q ₅
D ₀	3	14	D ₅
D ₁	4	13	D ₄
Q ₁	5	12	Q ₄
D ₂	6	11	D ₃
Q ₂	7	10	Q ₃
GND	8	9	CP

E _i	1	20	V _{CC}
Q ₀	2	19	Q ₇
D ₀	3	18	D ₇
D ₁	4	17	D ₆
Q ₁	5	16	Q ₆
D ₂	6	15	D ₅
Q ₂	7	14	Q ₅
D ₃	8	13	D ₄
Q ₃	9	12	Q ₄
GND	10	11	CP

		Denomination: SCHEMATIC DIAGRAM Mod. PROJECT 100	DWG. 2 BIS
		Revision:	Date: 8-6-84



- 1 +15
- 2 -15
- 3 +5
- 10 -5

by	1	16	V _{DD}
bx	2	15	OUT/IN bx or by
cy	3	14	OUT/IN cy or dx
OUT/IN cx or cy	4	13	ax
IN/OUT cx	5	12	ax
	6	11	A
INH	6	11	A
V _{EE}	7	10	B
V _{SS}	8	9	C

CHANNELS	4	1	16	V _{DD}
IN/OUT	6	2	15	2
COM OUT/IN	3	14	1	CHANNELS
CHANNELS	7	4	13	0
IN/OUT	5	5	12	3
	6	11	A	
INH	6	11	A	
V _{EE}	7	10	B	
V _{SS}	8	9	C	

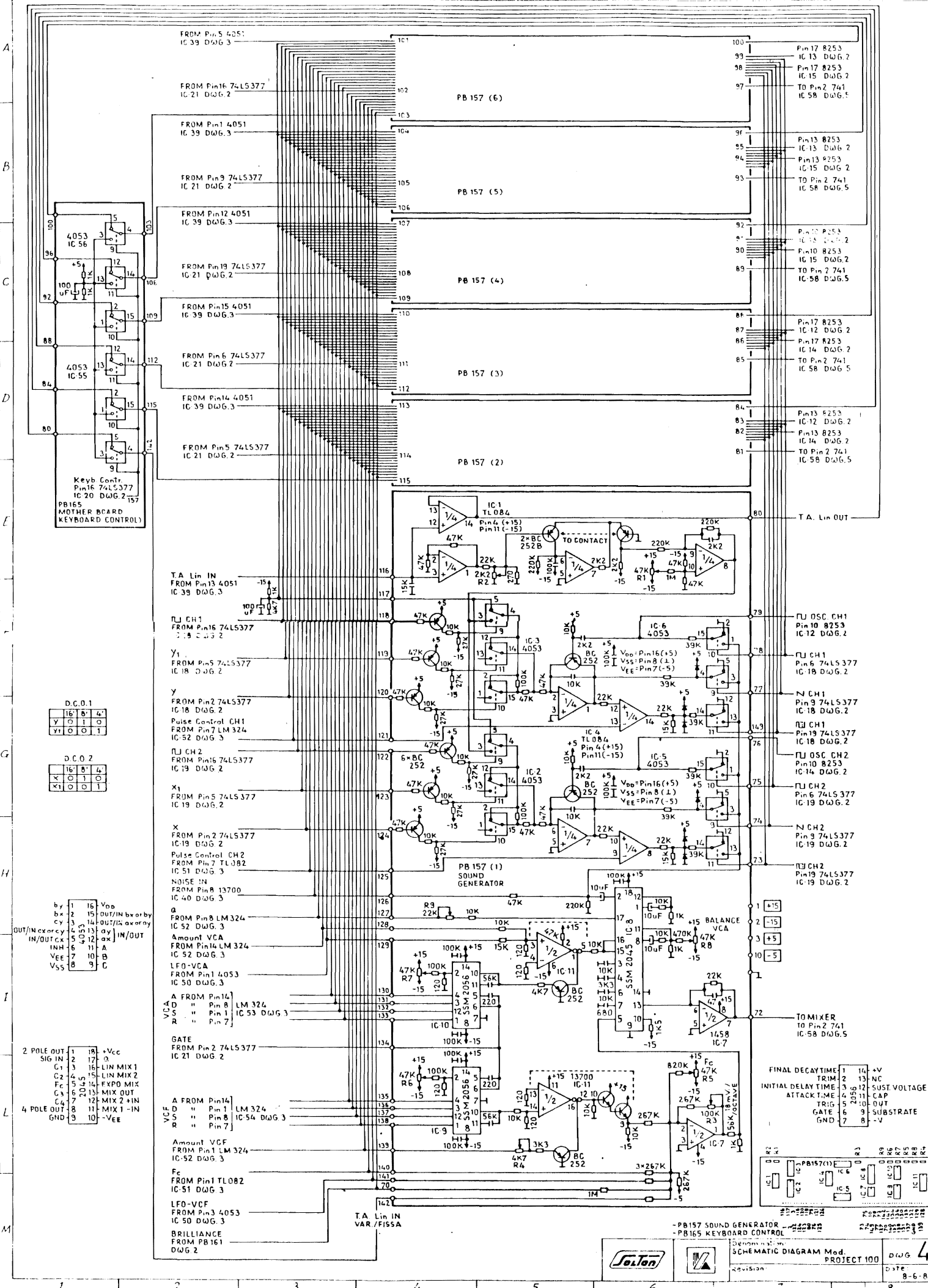
-PB 165 NOISE-LFO-MPX-SAMPLE HOLDS

Denomination:
SCHEMATIC DIAGRAM Mod.
PROJECT 100



DWG 3
Date 8-6-84

A
B
C
D
E
F
G
H



Keyb Contr.
Pin16 74LS377
IC 20 DWG.2 157
PB165
MOTHER BOARD
KEYBOARD CONTROL

D.C.0.1

16	8	4
Y	0	1
Yr	0	1

D.C.0.2

16	8	4
X	0	1
Xr	0	1

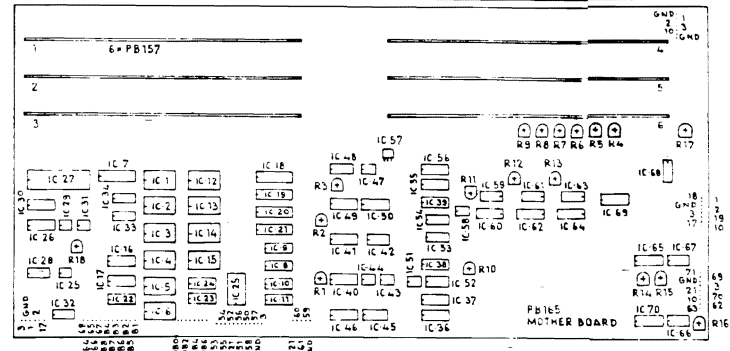
b_y 1 15 V_{DD}
b_x 2 15 OUT/IN b_y or y
c_y 3 14 OUT/IN c_y or y
c_x 4 15 IN/OUT
d_y 5 4053
d_x 6 12 IN/OUT
INH 7 11 A
VEE 8 10 B
VSS 8 9 C

2 POLE OUT 1 18 +V_{CC}
SIG IN 2 17 0
C₁ 3 16 LIN MIX 1
C₂ 4 15 LIN MIX 2
F_c 5 16 EXPD MIX
C₃ 6 15 MIX OUT
C₄ 7 12 MIX 2 +IN
C₄ 8 11 MIX 1 -IN
4 POLE OUT GND 9 10 -VEE

- A FROM Pin14 LM 324
- S " Pin 8 IC 53 DWG.3
- R " Pin 7
- GATE FROM Pin 2 74LS377 IC 21 DWG.2
- VCF A FROM Pin14 LM 324
- S " Pin 8 IC 54 DWG.3
- R " Pin 7
- F_c FROM Pin 1 LM 324 IC 52 DWG.3
- F_c FROM Pin 1 TL082 IC 51 DWG.3
- LFD-VCF FROM Pin 3 4053 IC 50 DWG.3
- BRIILLIANCE FROM PB161 DWG.2

FINAL DECAY TIME	1	14	+V
TRIM	2	13	NC
INITIAL DELAY TIME	3	12	SUST VOLTAGE
ATTACK TIME	4	11	CAP
TRIG	5	10	OUT
GATE	6	9	SUBSTRATE
GND	7	8	-V

SIG A IN 1 14 Vcc
 SIG A OUT 2 13 Control A
 SIG B IN 4 13 Control B
 SIG B OUT 5 12 SIG D
 Control C 6 10 OUT
 Control C 7 9 IN SIG C
 Vss 8 11



by 1 15 Vcc
 cy 2 16 037 IN or as by
 4 5 033 04 OUT IN or as or y
 IN OUT 6 5 033 04 IN/OUT
 INH 8 11 A
 VEE 7 10 B
 Vss 8 11 C

Clock Input 1 16 Ground
 NC 2 15 NC
 NC 3 14 NC
 Clock Input 2 4 13 Tetraode gate
 Signal Input 5 12 Output 5:2
 NC 6 11 NC
 NC 7 10 NC
 Output 5:3 8 9 Negative supply

+5EN 17
 -5A 18
 +5 19
 -5 20
 +15 2
 -15 3
 -21 4
 +5 5
 -5 6

