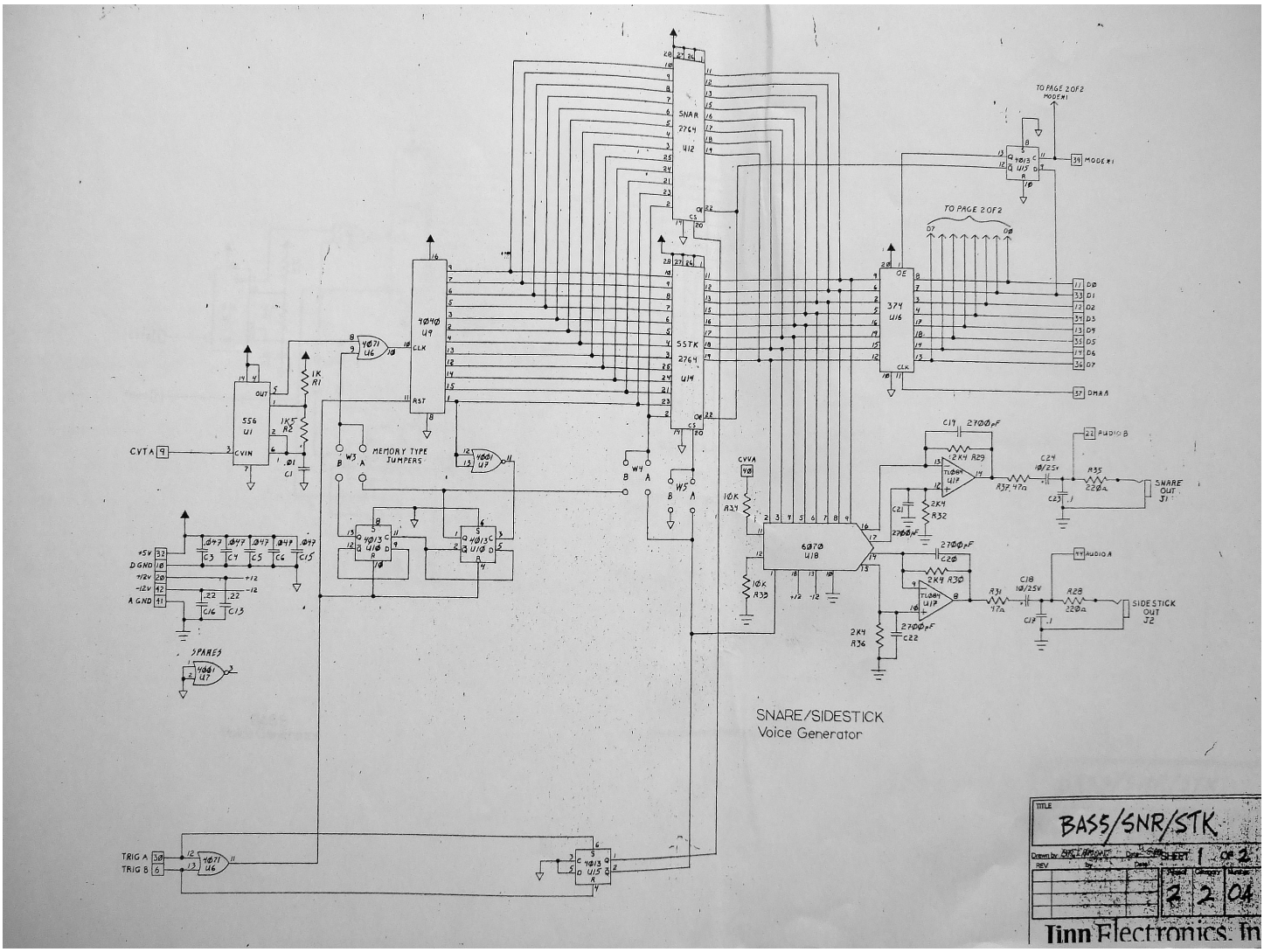

SNAR 2764 U12
SSTK 2764 U14
374 U16
6070 U18
4040 U9
556 U1
TO PAGE 2 OF 2
MODE1
DMAA
AUDIO B
AUDIO A
SNARE OUT J1
SIDESTICK OUT J2
MEMORY TYPE JUMPERS
SPARES
CVTA
CVVA
TRIG A
TRIG B
+5V
DGND
+12V
-12V
AGND
SNARE/SIDESTICK
Voice Generator
TITLE
BASS/SNR/STK
SHEET 1 OF 2
Tinn Electronics, In

II. PROCESSOR AND SUPPORT CIRCUITRY

D. POWER UP CIRCUIT

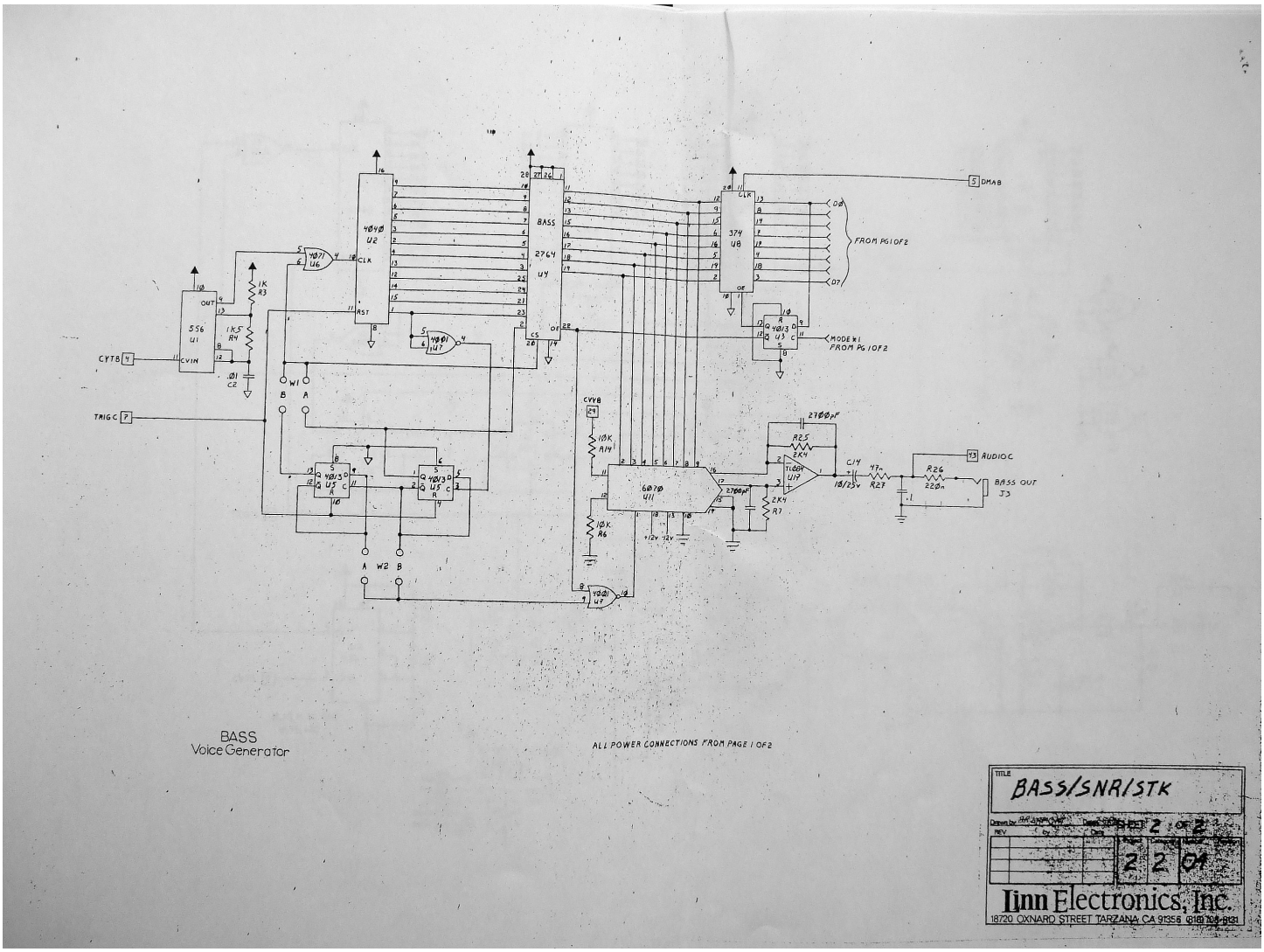
1. This power detection circuitry detects the presence or absence of AC power, and is used to reset the CPU and inhibit writing to the RAM's when the power is switched off, and put the CMOS RAM's into standby mode, so that they can be powered by the battery with minimal current consumption.

2. The circuitry works by detecting the AC power directly from the power transformer 5 volt secondary winding, and uses this signal reset the 8088 processor and to enable or disable the RAM address decoders.

3. The address decoders are high-speed CMOS devices which are powered from the battery. When AC power is not present, the decoders are disabled, thus pulling all RAM chip-select lines high, inhibiting operation and putting them in low-power standby mode. AC power from the 5v winding of the transformer is full wave rectified and smoothed by CR4, CR5, and C51.

4. This signal then charges C45 through R36 and R38. When C45 becomes charged (after timeconstant RC), it switches on Q2, which is also powered from the battery, enabling the RAM decoders. The large charging timeconstant RC is necessary to ensure that the power supplies have had time to come up and stabilize before enabling the RAM.

5. When AC power is removed, C45 discharges rapidly through CR3 and R37, turning off Q2 and disabling the RAMs before the stored charge on the front end to 5 volt supply has had time to decay below 4.5 volts.



BASS
Voice Generator

ALL POWER CONNECTIONS FROM PAGE 1 OF 2

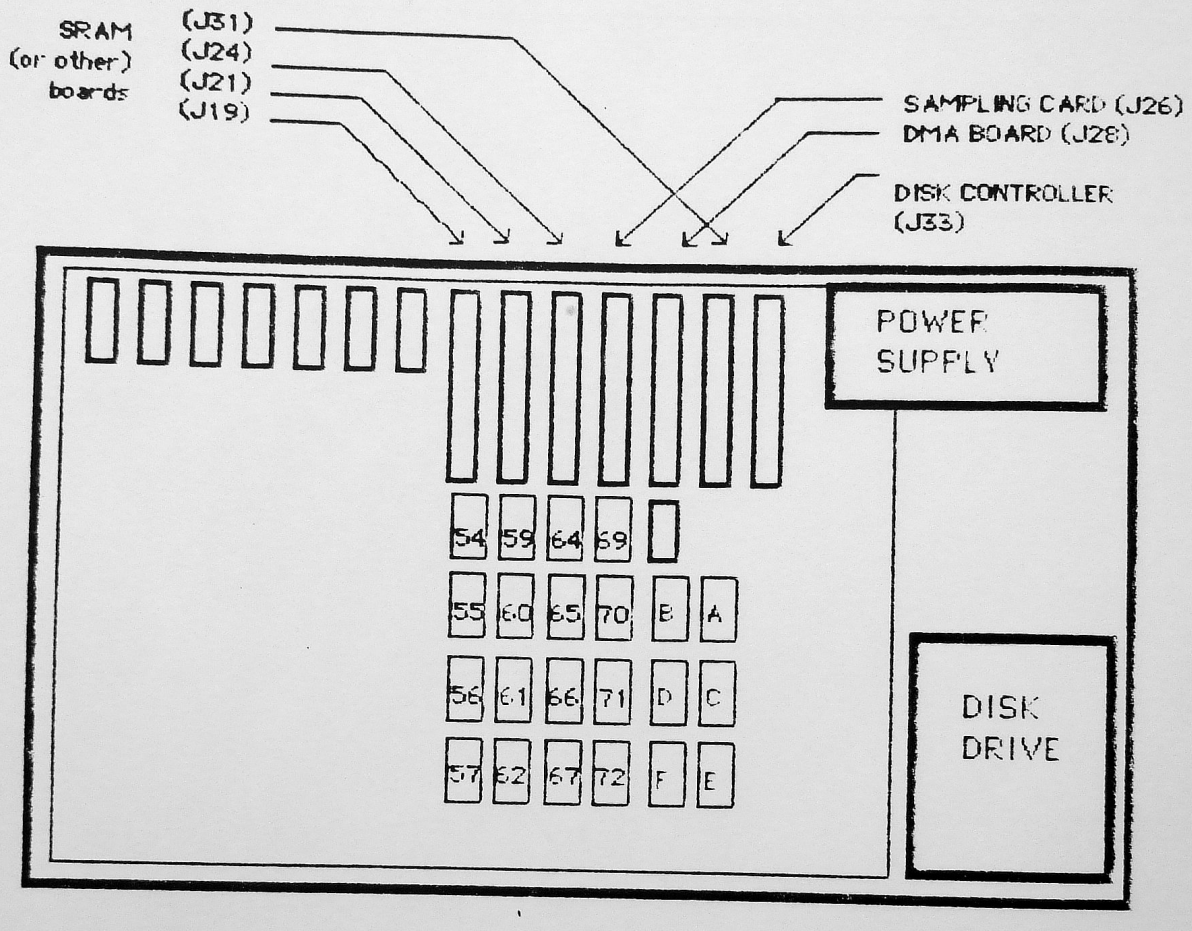
TITLE BASS/SNR/STK

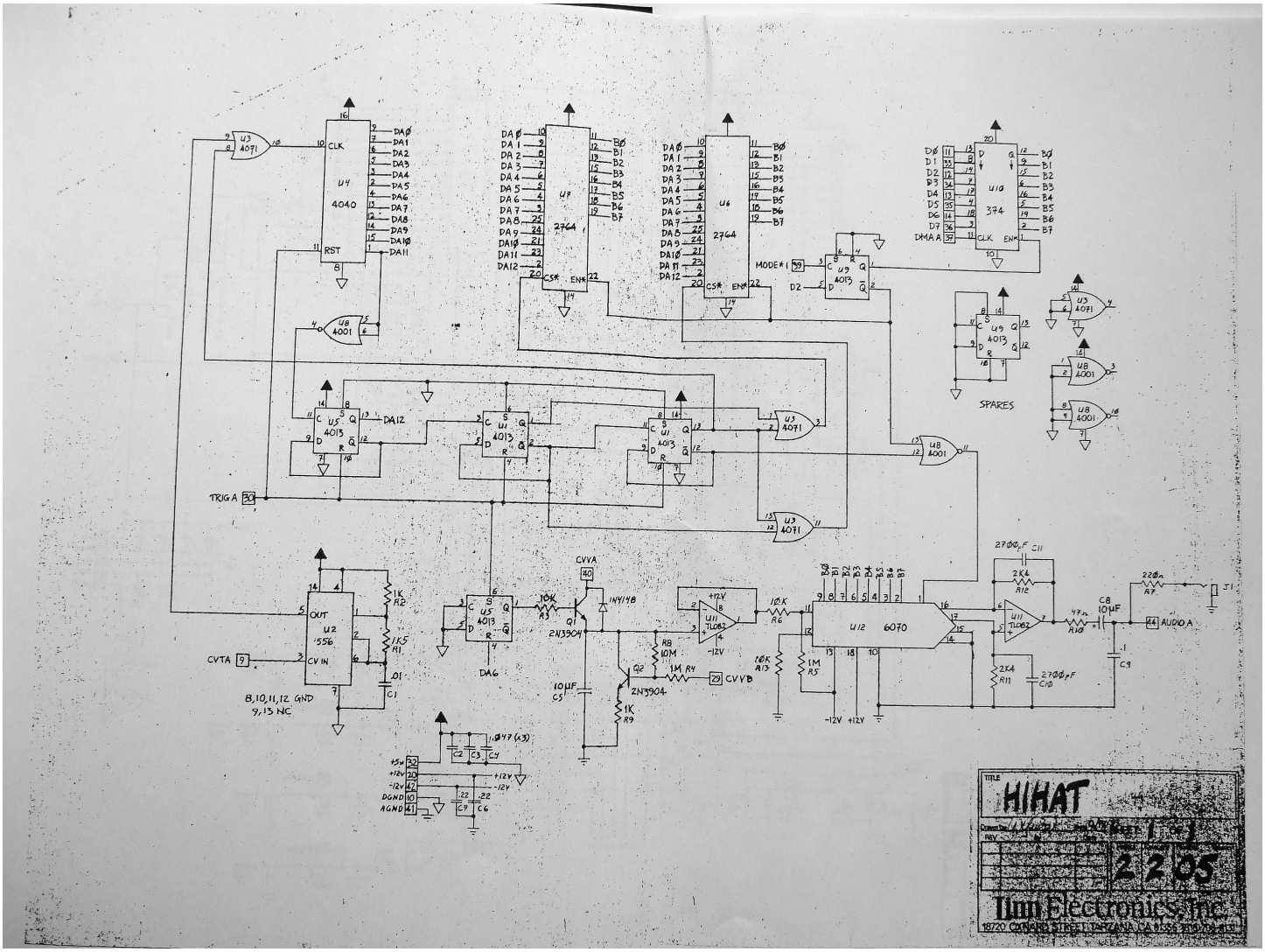
Drawn by [illegible] Date [illegible] SHEET 2 OF 2

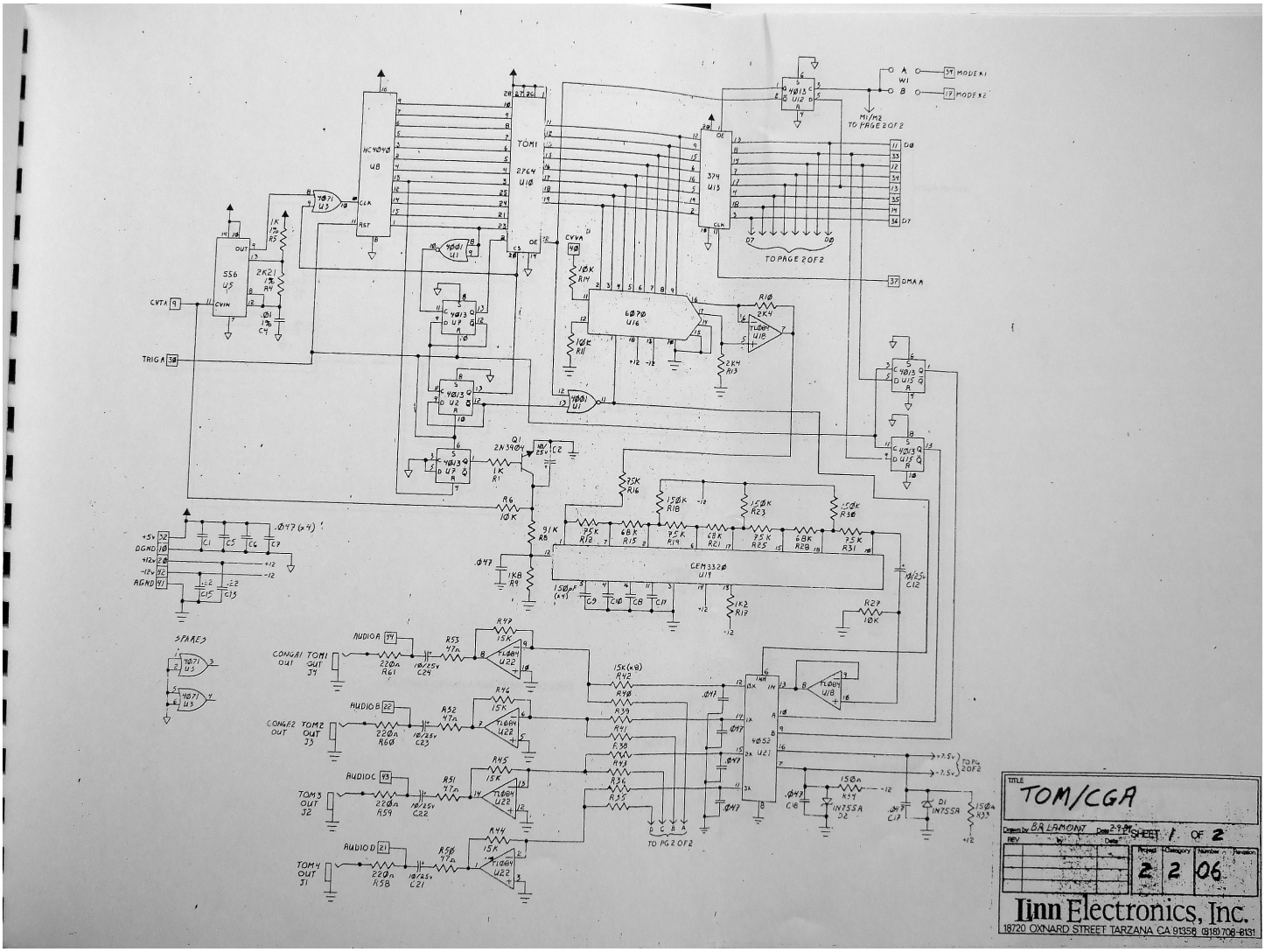
REV					
				2	2

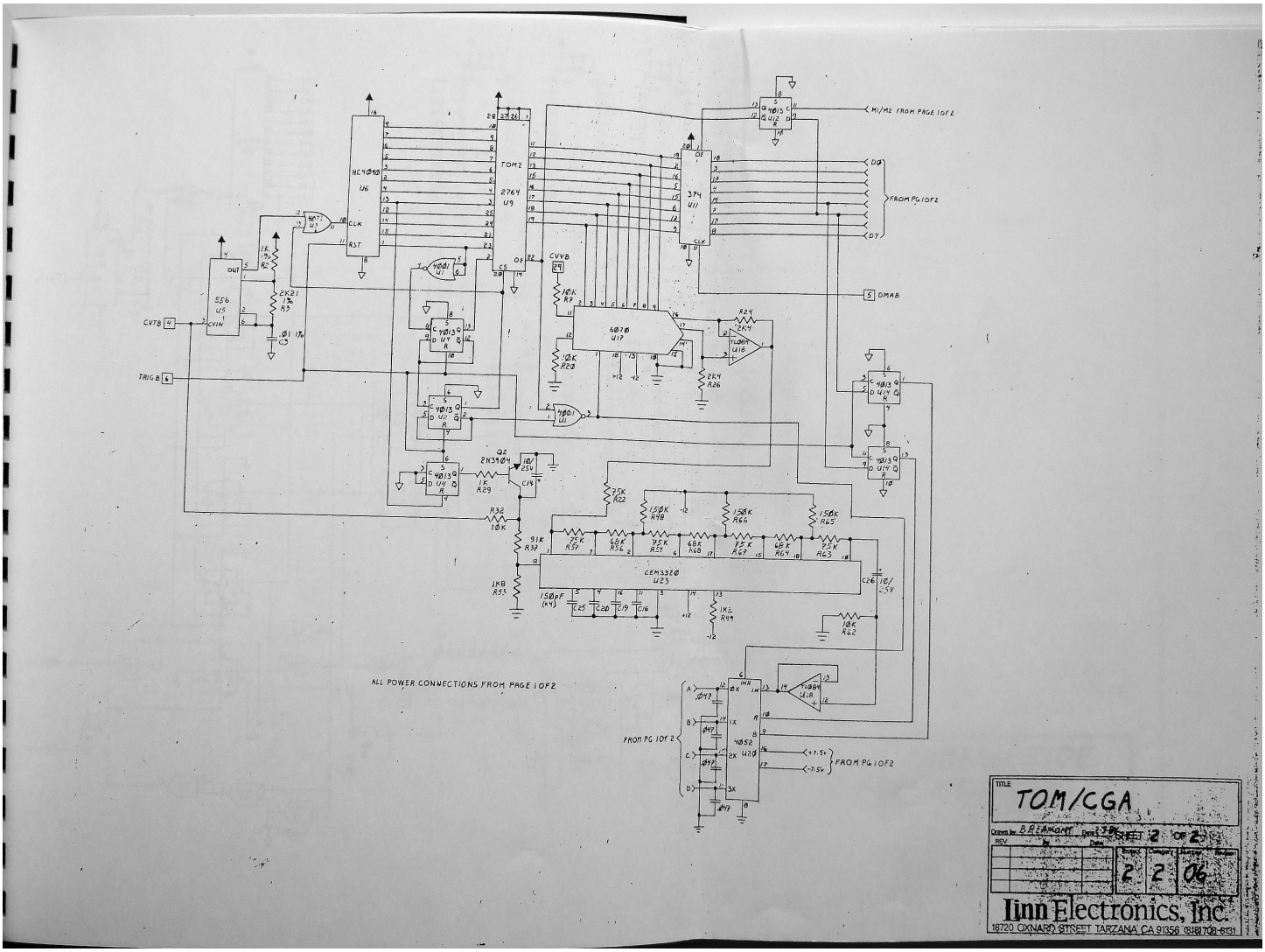
Linn Electronics, Inc.
18720 OXNARD STREET TARZANA CA 91356 (818) 708-8131

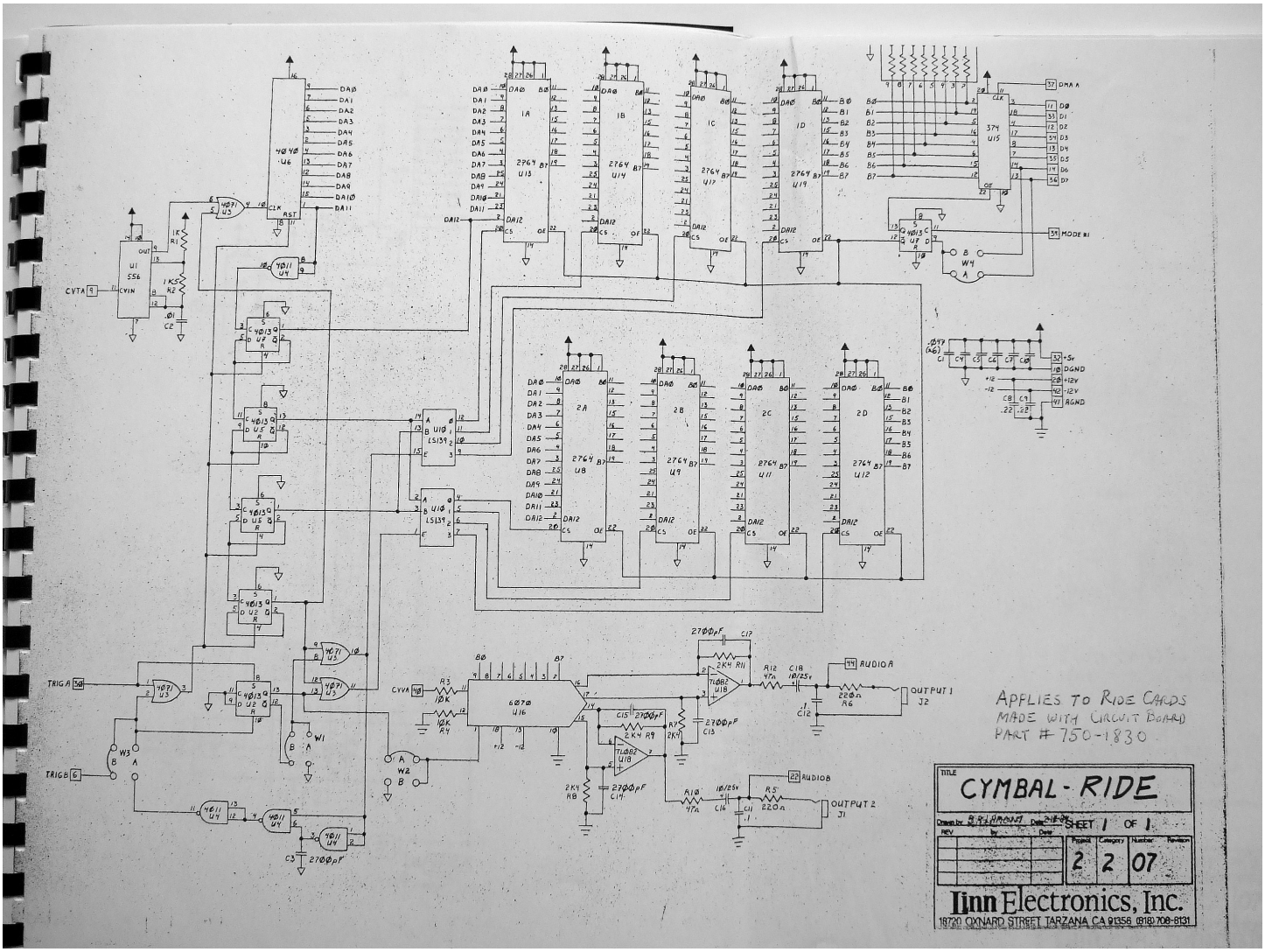
Linn 9000 Option Board Placement

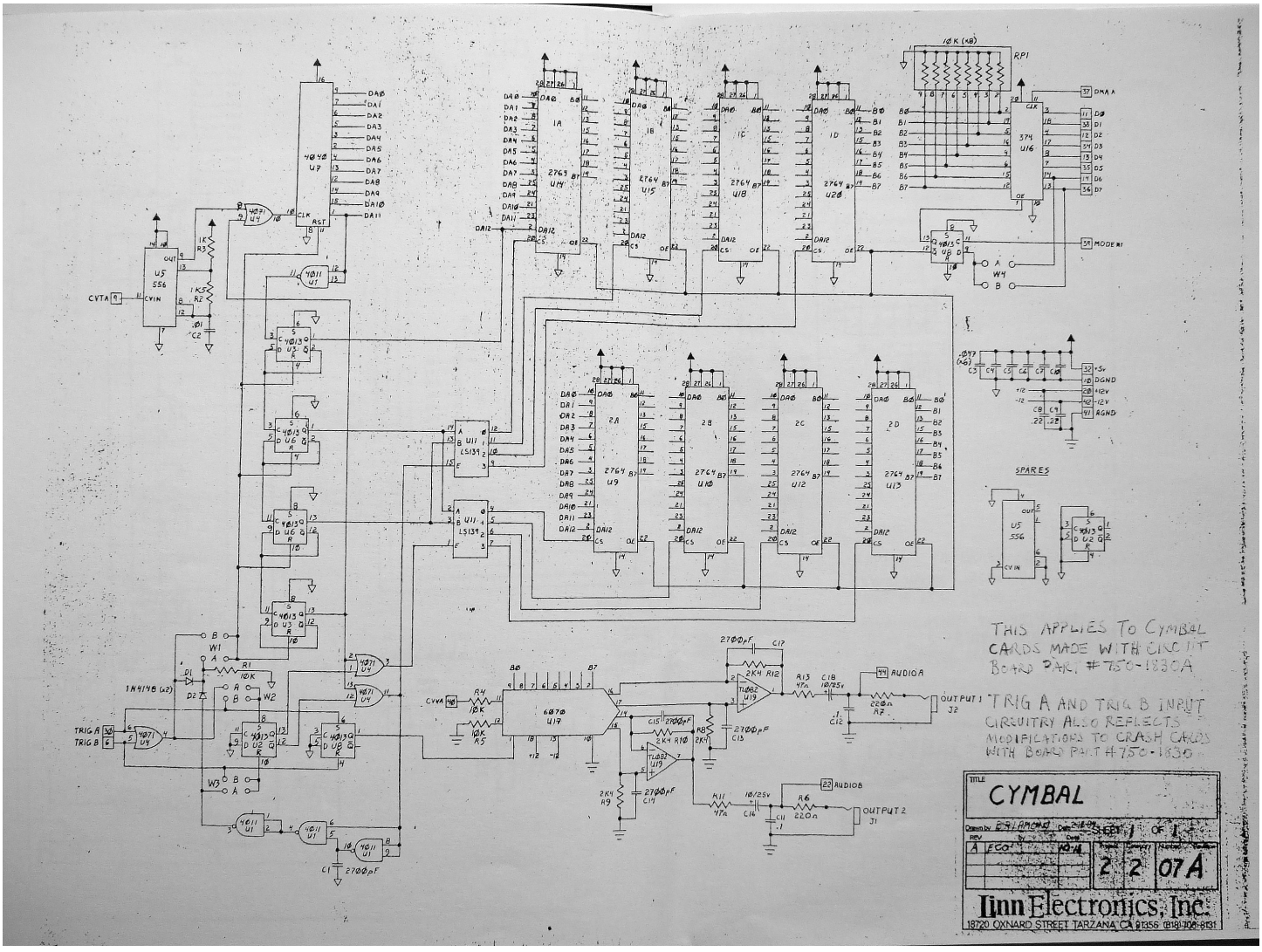



U4 4040
U7 2764
U6 2764
U10 374
U5 4013
U1 4013
U9 4013
U3 4071
U8 4001
U2 '556
U11 TL082
U12 6070
SPARES
TRIG A
CV A
CV B
CV TA
AUDIO A
8,10,11,12 GND
9,13 NC
+5V
+12V
-12V
DGND
AGND
HIHAT
TIM Electronics, Inc.
18720 CONTARIO STREET | TARZANA, CA 91356
2205


TOM/CGA
Drawn by BR LAMONT
SHEET 1 OF 2
Linn Electronics, Inc.
18720 OXNARD STREET TARZANA CA 91356 (818) 708-8131
TOM1
2764 U10
HC4049 U8
6870 U16
CEM3320 U19
4052 U21
TL084 U22
TO PAGE 2 OF 2
FROM PAGE 2 OF 2
TO PG 2 OF 2
M1/M2 TO PAGE 2 OF 2
SPARES
CONGA1 TOM1 OUT J4
CONGA2 TOM2 OUT J3
TOM3 OUT J2
TOM4 OUT J1
AUDIO A
AUDIO B
AUDIO C
AUDIO D
1N755A
MODE X1
MODE X2
DMA A
CV A
TRIG A


M1/M2 FROM PAGE 1 OF 2
FROM PG 1 OF 2
DMAB
CVTB
TRIG B
ALL POWER CONNECTIONS FROM PAGE 1 OF 2
FROM PG 1 OF 2
+7.5V
-7.5V
TOM/CGA
Linn Electronics, Inc.
18720 OXNARD STREET TARZANA CA 91356 (818) 708-6131


APPLIES TO RIDE CARDS MADE WITH CIRCUIT BOARD PART # 750-1830.
TITLE
CYMBAL - RIDE
SHEET 1 OF 1
Linn Electronics, Inc.
18720 OXNARD STREET TARZANA CA 91356 (818) 708-8131



THIS APPLIES TO CYMBAL CARDS MADE WITH CIRCUIT BOARD DWG. #750-1830A

TRIG A AND TRIG B INPUT CIRCUITRY ALSO REFLECTS MODIFICATIONS TO CRASH CARDS WITH BOARD PART #750-1630

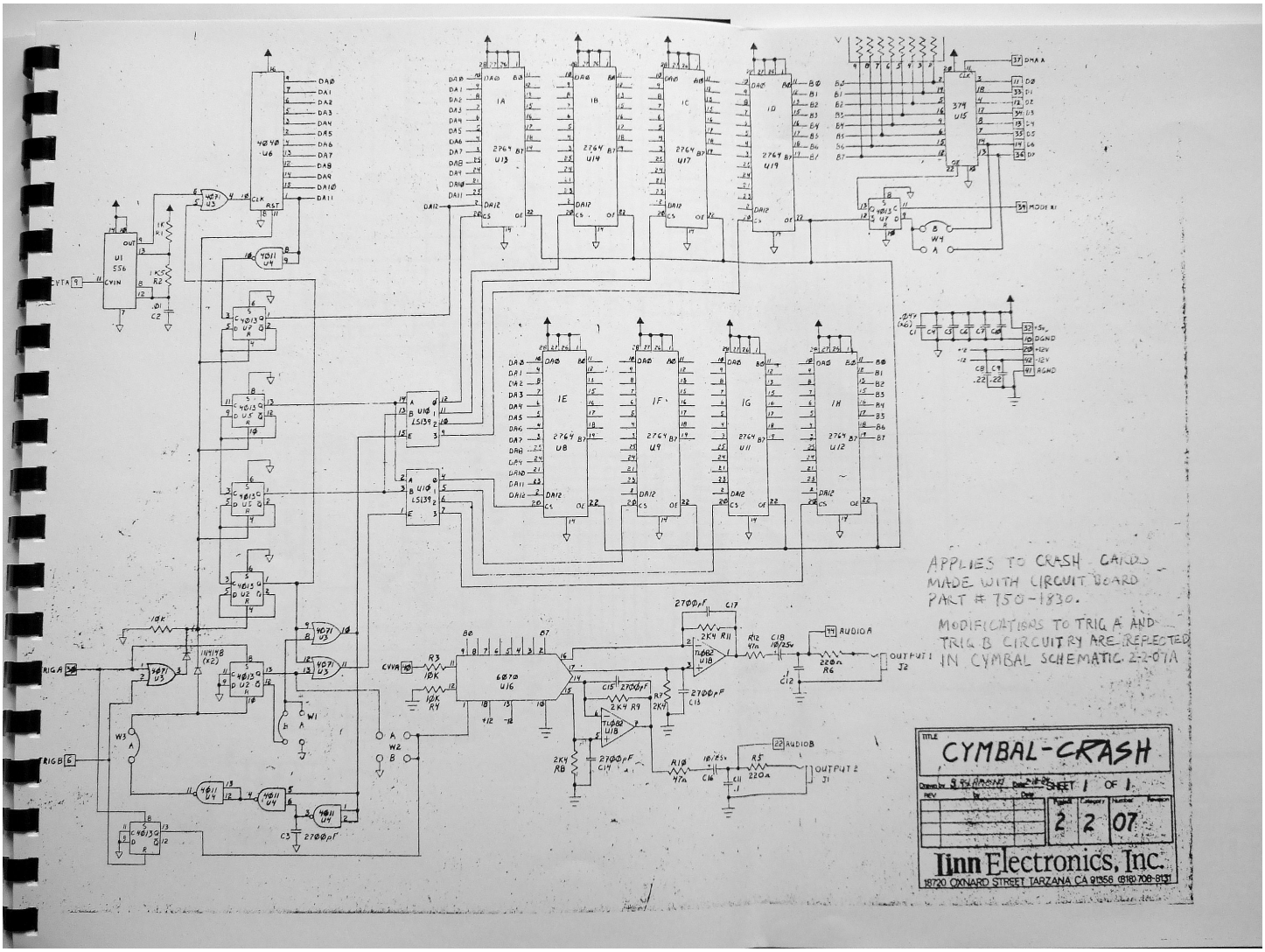
TITLE: CYMBAL

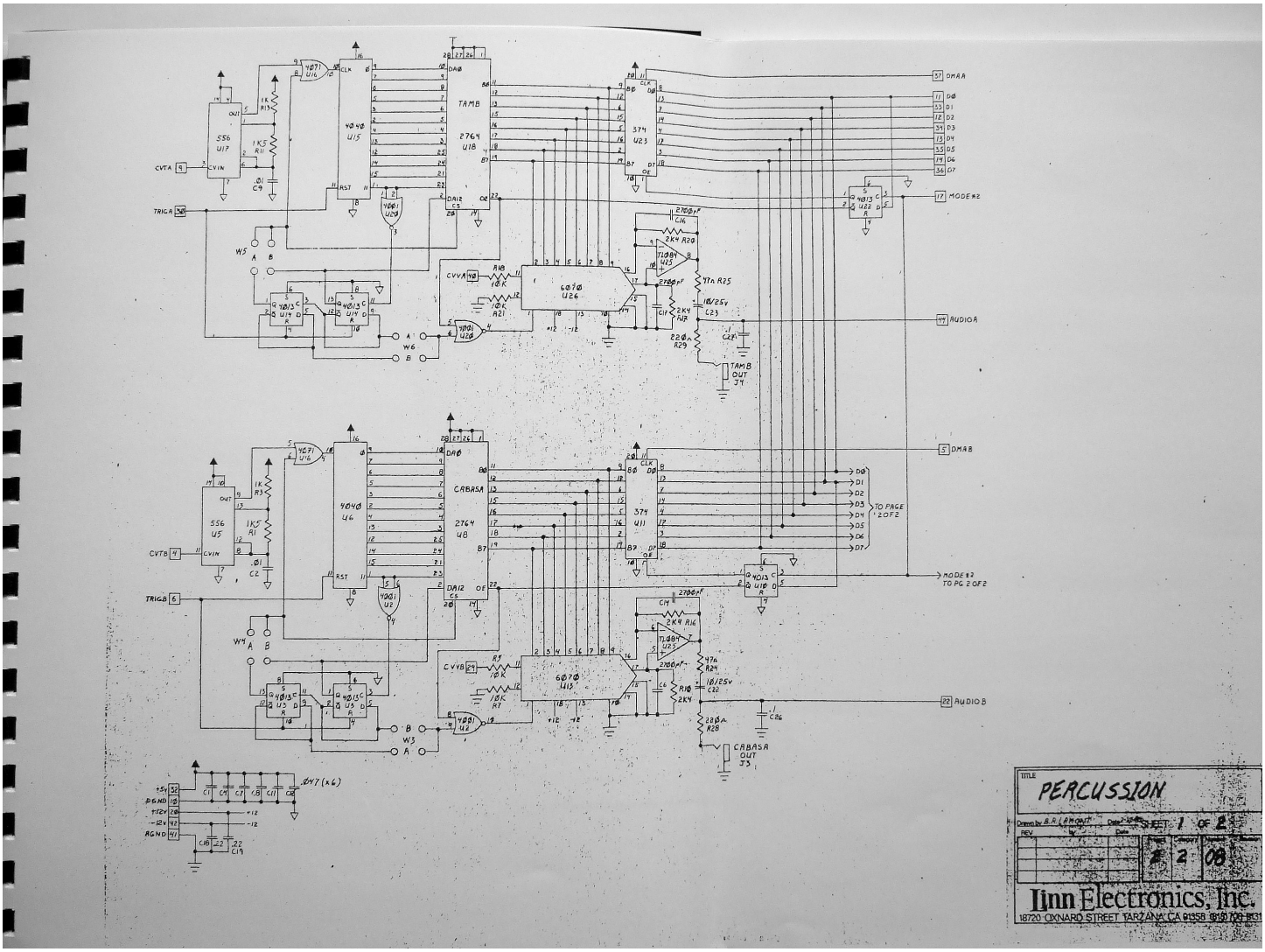
Drawn by: E.H. ARNOLD Date: 4-16-84 SHEET 1 OF 1

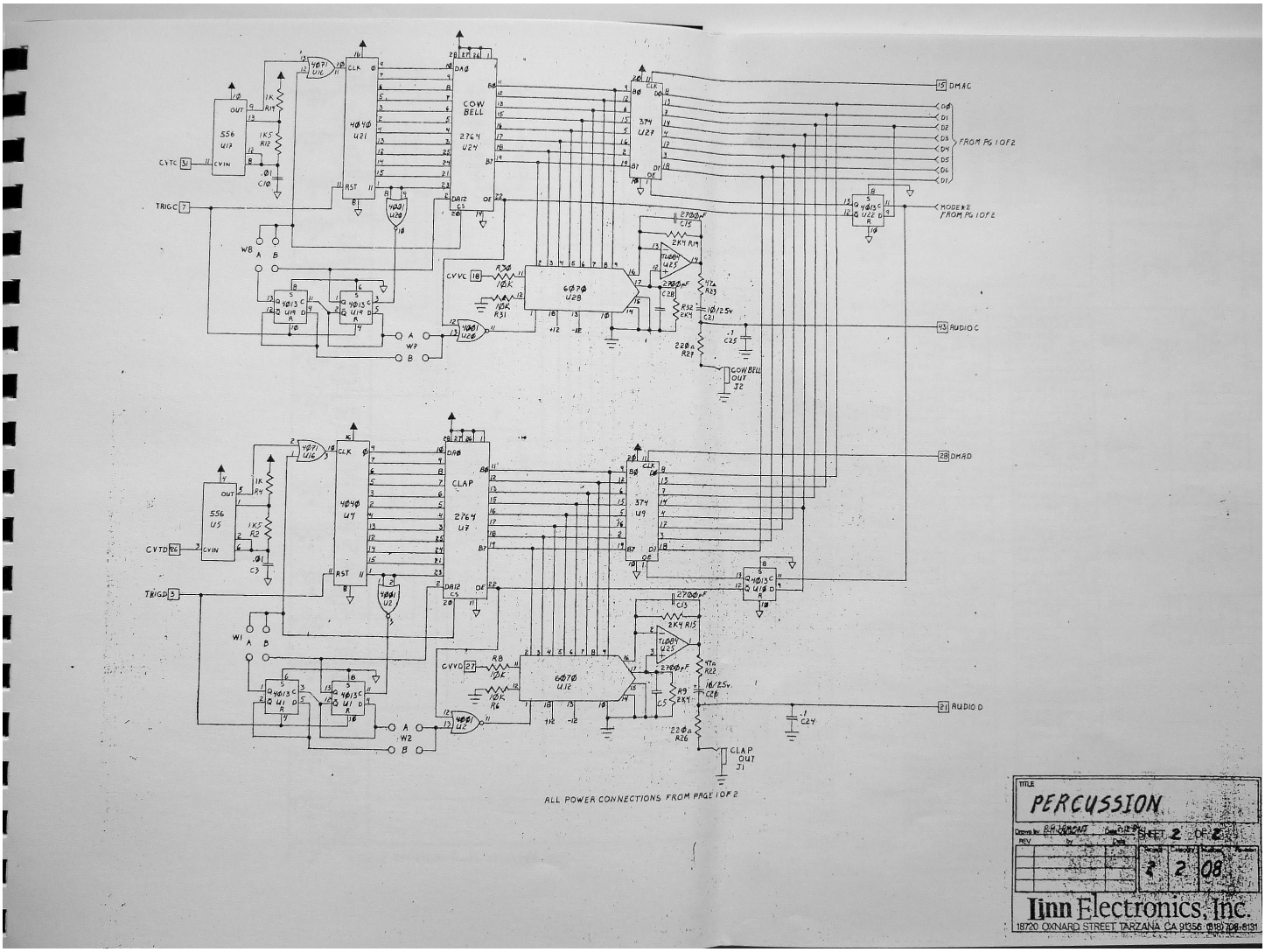
REV	BY	DATE	ECO #
A			

2 2 07A

Linn Electronics, Inc.
18720 OXNARD STREET TARZANA, CA 91356 (818) 708-8131


APPLIES TO CRASH CARDS MADE WITH CIRCUIT BOARD PART # 750-1830.
MODIFICATIONS TO TRIG A AND TRIG B CIRCUITRY ARE REFLECTED IN CYMBAL SCHEMATIC. 2-2-07A
TITLE
CYMBAL-CRASH
SHEET 1 OF 1
Linn Electronics, Inc.
18720 OXNARD STREET TARZANA CA 91356 (818) 708-8131


TAMB
2764
U18
374
U23
556
U17
4040
U15
CVTA
TRIGA
W5
W6
CVVA
6070
U26
TL084
U25
TAMB OUT
J4
DMAA
MODE#2
AUDIOA
CABASA
2764
U8
374
U11
4040
U6
556
U5
CVTB
TRIGB
W4
W3
CVVB
6070
U13
CABASA OUT
J3
DMAB
AUDIOB
TO PAGE 2 OF 2
MODE#2 TO PG 2 OF 2
+5V
DGND
+12V
-12V
AGND
.047 (x6)
PERCUSSION
Linn Electronics, Inc.
18720 OXNARD STREET TARZANA CA 91356 (818) 709-8131

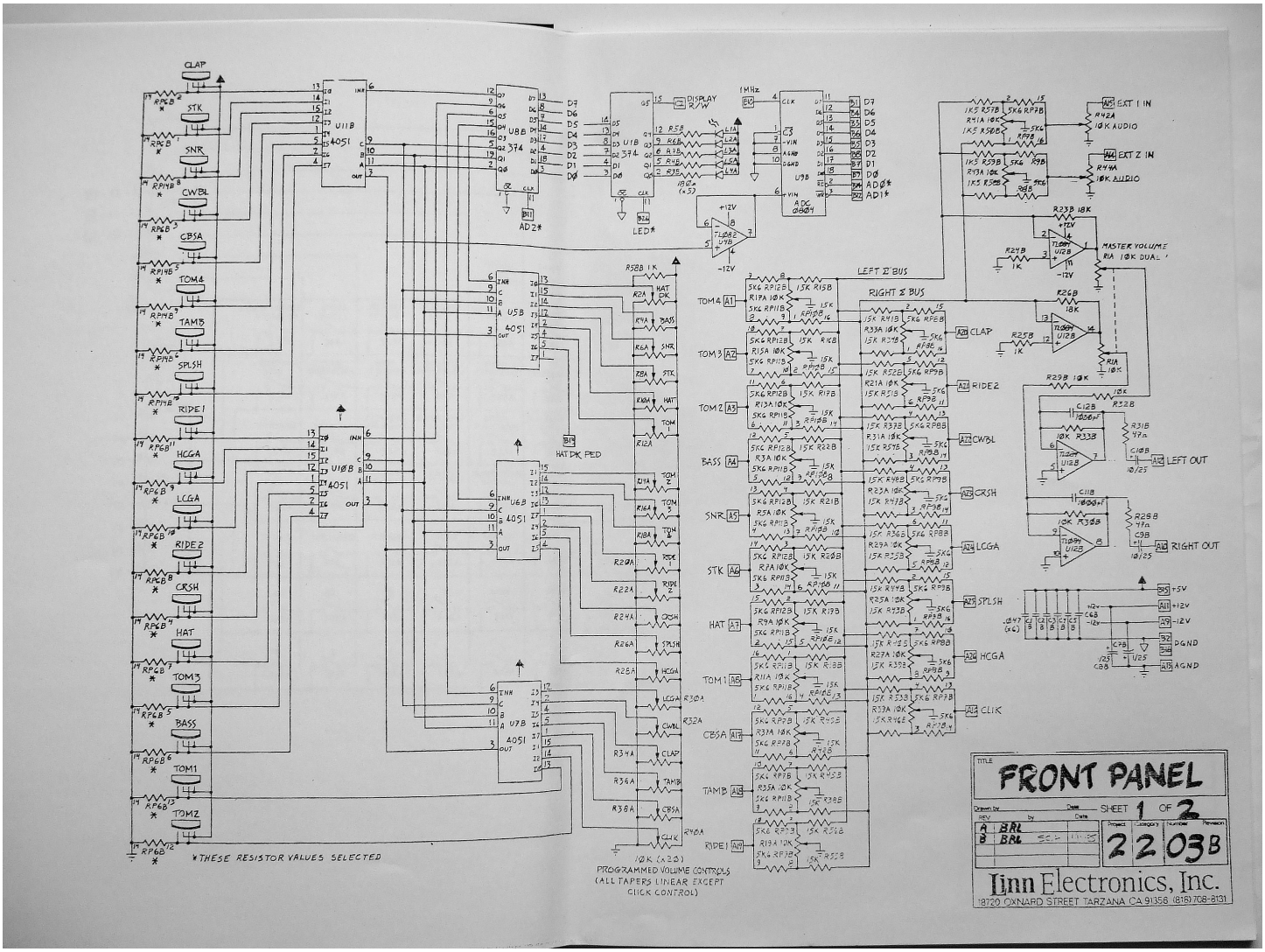


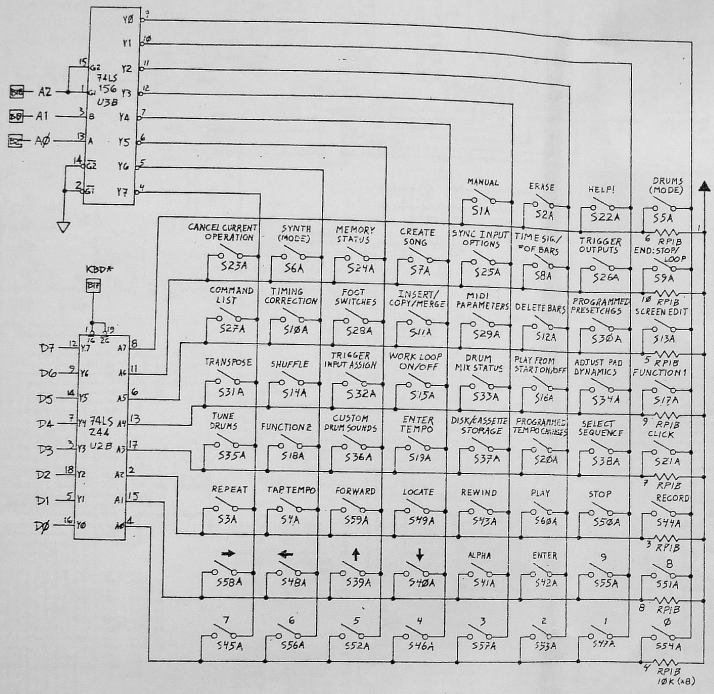
TITLE: PERCUSSION

Drawn by: B.R. VINCENT — Date: 11/8/82 — SHEET 2 OF 2

REV	by	Date
		3 2 08

Linn Electronics, Inc.
18720 OXNARD STREET TARZANA CA 91356 (818) 708-8131


CLAP
STK
SNR
CWBL
GBSA
TOM4
TAMB
SPLSH
RIDE1
HCGA
LCGA
RIDE2
CRSH
HAT
TOM3
BASS
TOM1
TOM2
*THESE RESISTOR VALUES SELECTED
PROGRAMMED VOLUME CONTROLS
(ALL TAPERS LINEAR EXCEPT
CLICK CONTROL)
LEFT Σ BUS
RIGHT Σ BUS
MASTER VOLUME
R1A 10K DUAL
LEFT OUT
RIGHT OUT
EXT 1 IN
EXT 2 IN
10K AUDIO
+5V
+12V
-12V
DGND
AGND
TITLE
FRONT PANEL
SHEET 1 OF 2
2203B
Linn Electronics, Inc.
18720 OXNARD STREET TARZANA CA 91356 (818)708-8131



TITLE **FRONT PANEL**

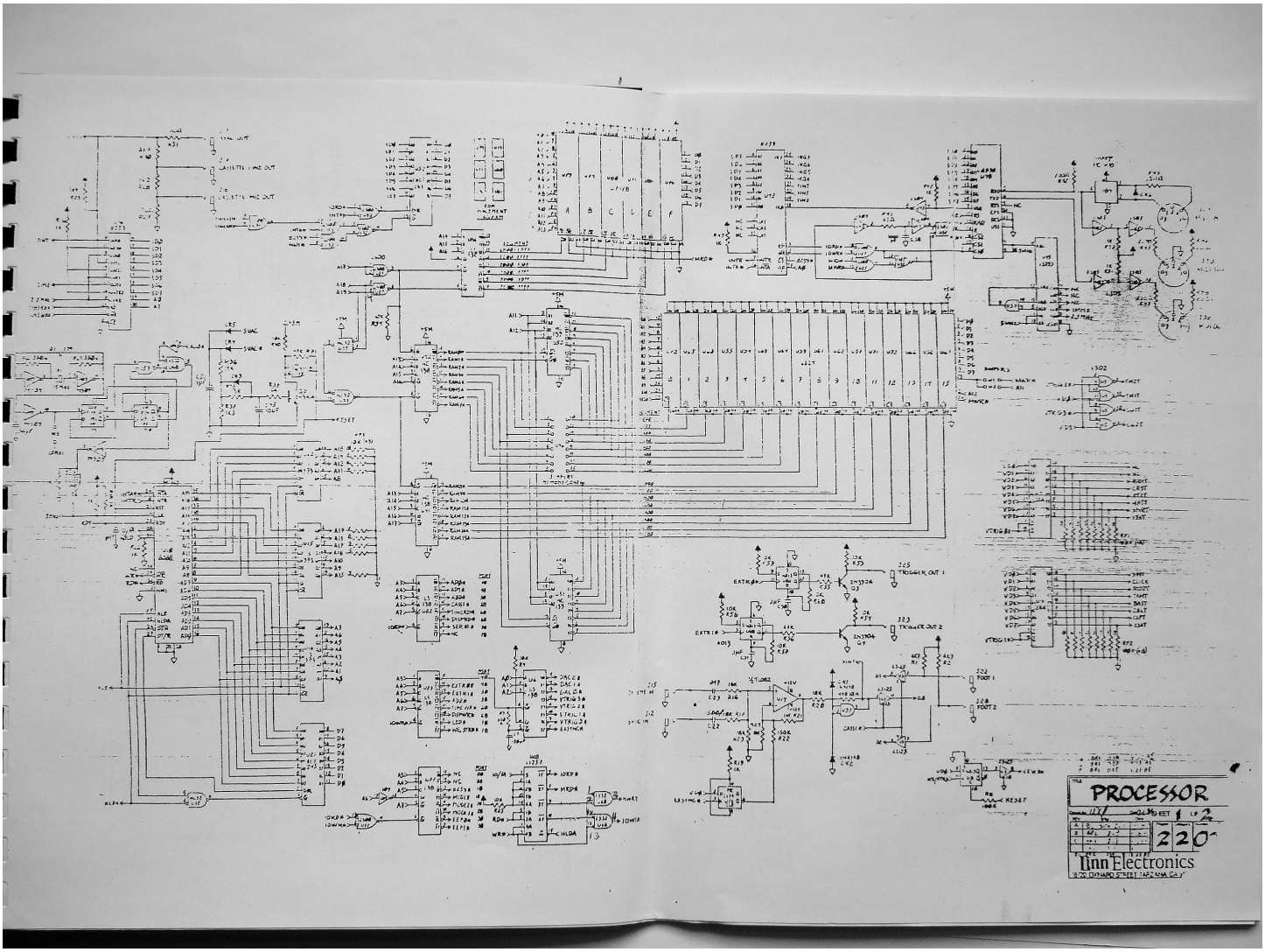
Drawn by: [illegible] Date: [illegible] SHEET 2 OF 2

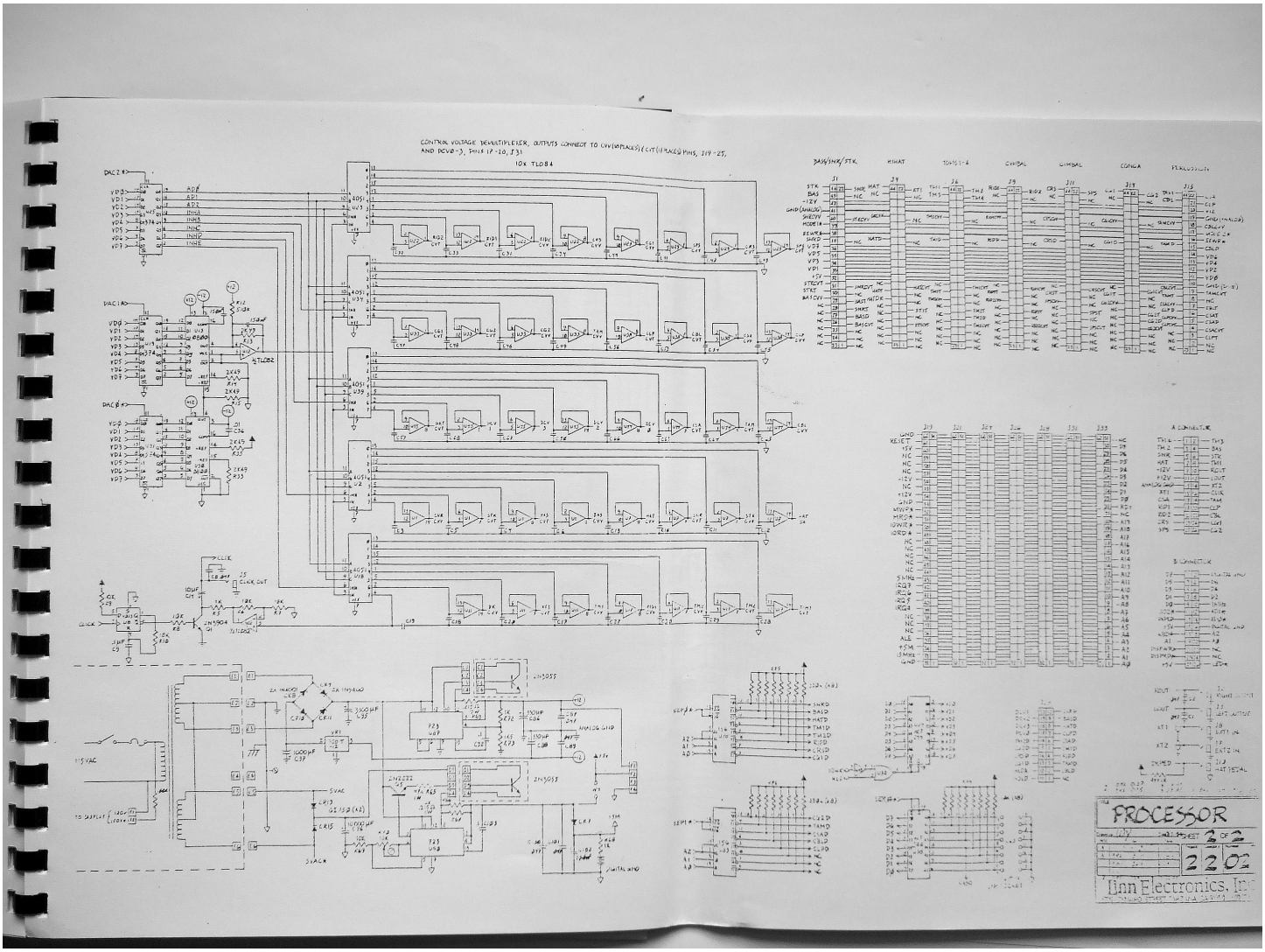
REV	by	Date
	L SCA	1/9/85

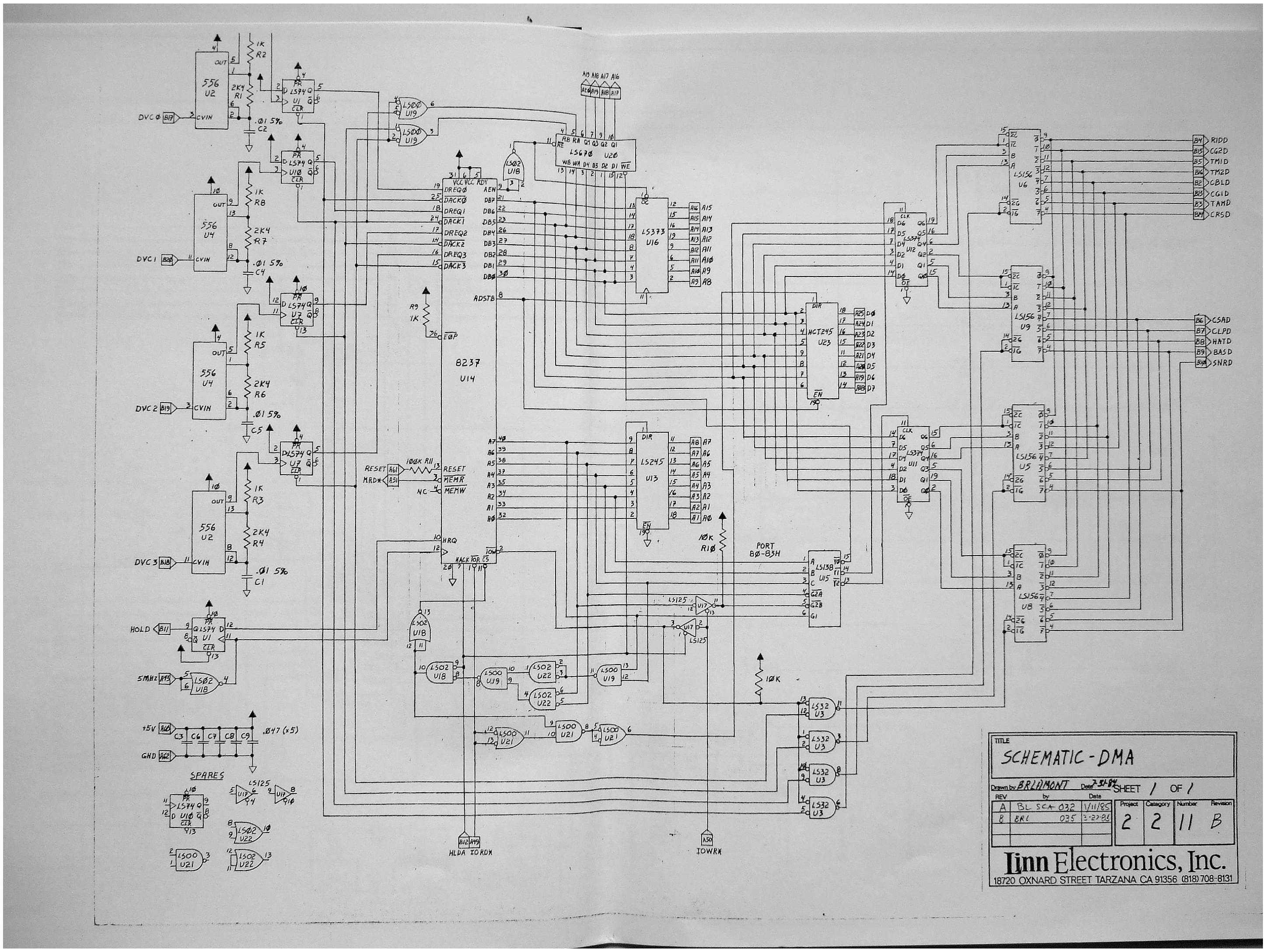
Project	Category	Number	Revision
2	2	03	B

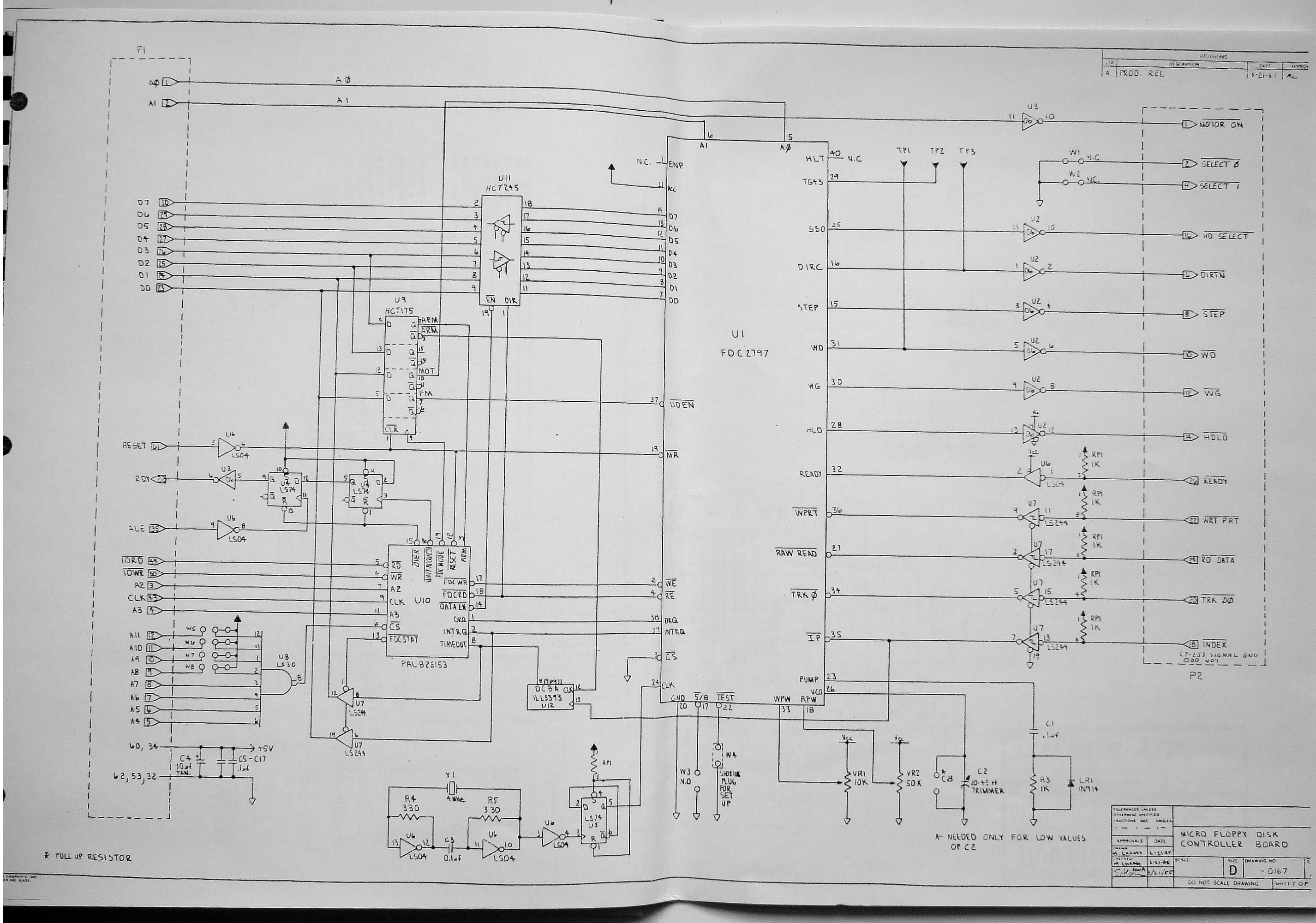
Linn Electronics, Inc.

18720 OXNARD STREET TARZANA CA 91356 (818) 708-8131

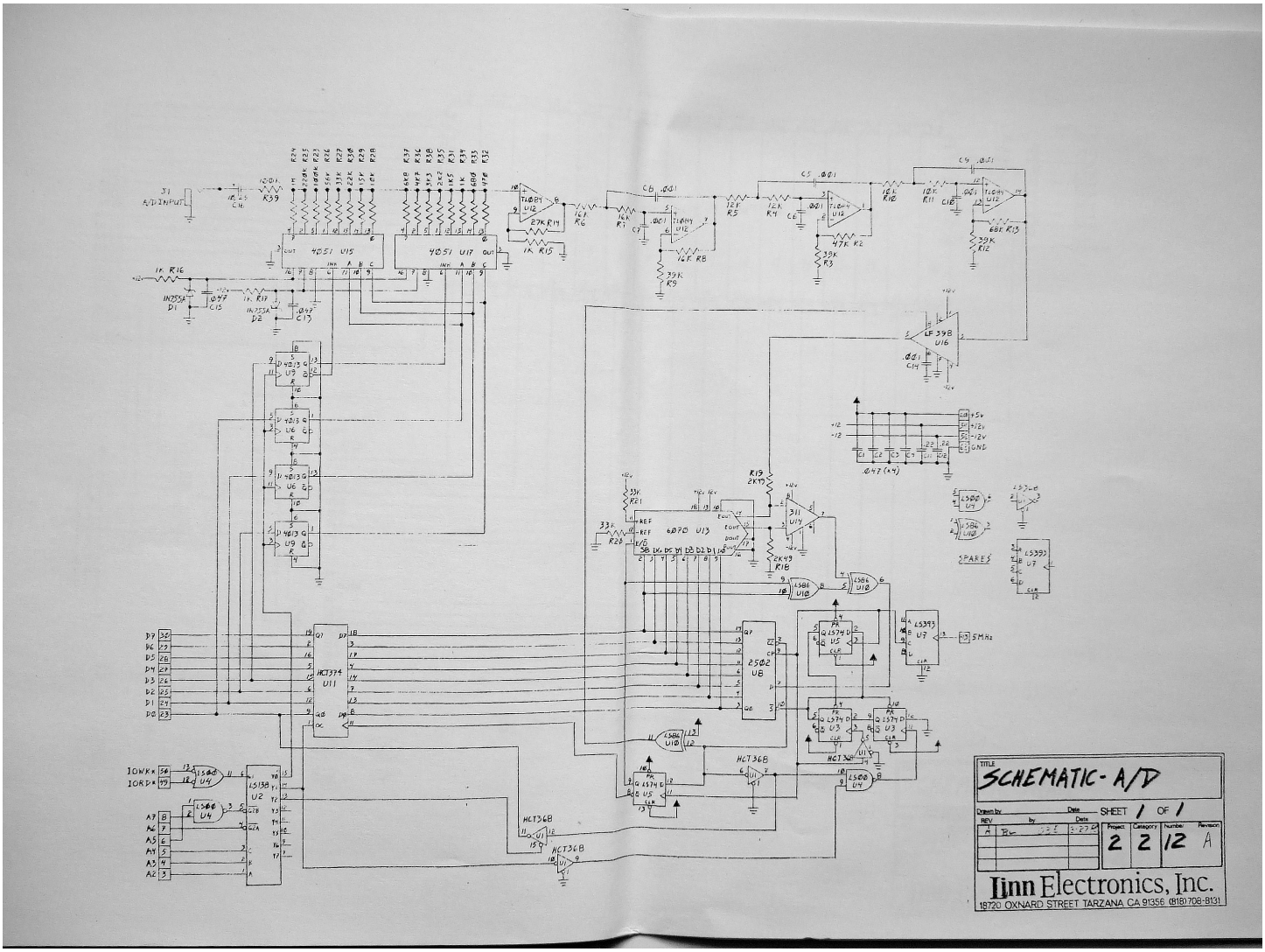

PROCESSOR
Atari Electronics

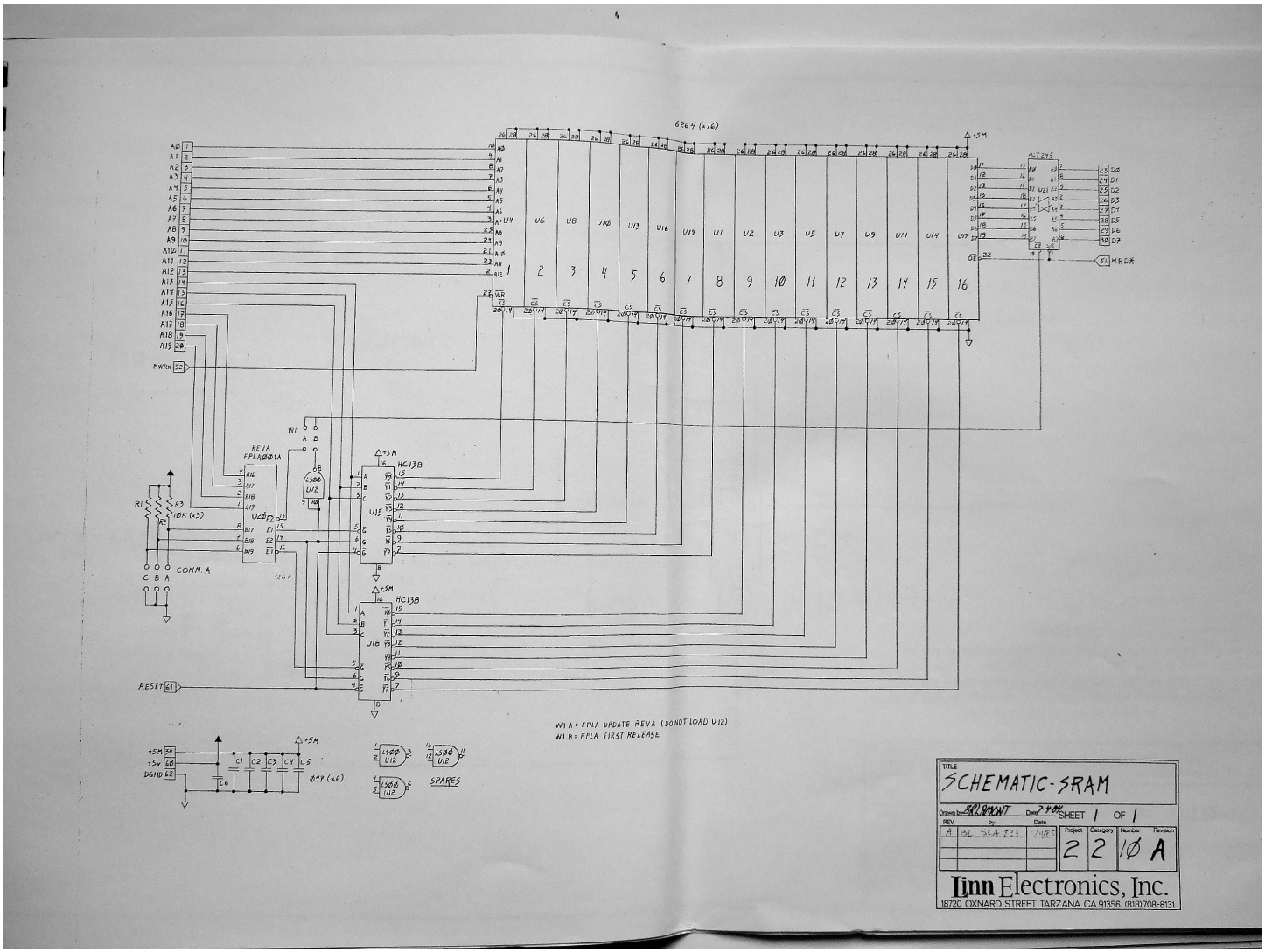

CONTROL VOLTAGE DEMULTIPLEXER, OUTPUTS CONNECT TO CVV(MPALES) (CVT(11 PALES) PINS, J19 - 25, AND DEVO-), THIS IP -10, J31
10X TL084
DAC2 IC
DAC1 IC
DAC0 IC
CLICK
CLICK OUT
115VAC
TO DISPLAY
SHACK
ANALOG GND
DIGITAL GND
PROCESSOR
Linn Electronics, Inc.

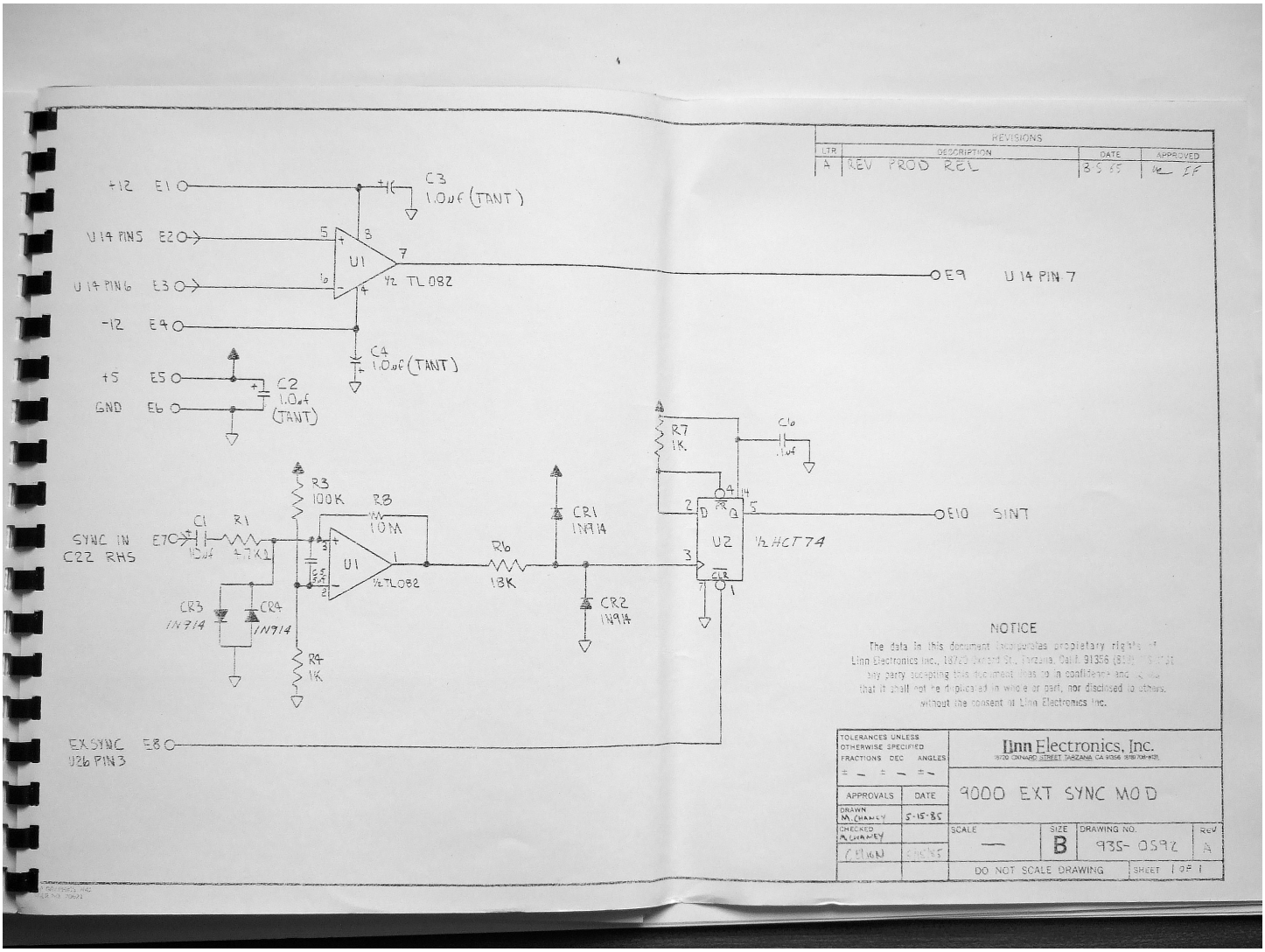

556
U2
DVC0
LS74
U1
LS00
U19
LS670
U20
8237
U14
LS373
U16
LS245
U13
HCT245
U23
LS374
U12
LS374
U11
LS156
U6
LS156
U9
LS156
U5
LS156
U8
LS138
U15
PORT
B0-B3H
LS125
U17
LS32
U3
LS02
U18
LS02
U22
LS00
U21
DVC1
DVC2
DVC3
HOLD
5MHz
+5V
GND
RESET
MRD*
HLDA
IORD*
IOWR*
RIDD
CG2D
TM1D
TM2D
CBLD
CG1D
TAMD
CRSD
CSAD
CLPD
HATD
BASD
SNRD
SPARES
TITLE
SCHEMATIC-DMA
Drawn by BRLAMONT
Date 7-31-84
SHEET 1 OF 1
REV
by
Date
A
BL SCA 032
1/11/85
B
BRL 035
3-27-85
Project
2
Category
2
Number
11
Revision
B
Linn Electronics, Inc.
18720 OXNARD STREET TARZANA CA 91356 (818) 708-8131



P1
U11 HCT245
U9 HCT175
U1 FDC2797
U10 PAL82S153
U8 LS30
U12 1/2 LS393
RESET
RDY
ALE
IORD
IOWR
A2
CLK
A3
60, 34
+5V
62, 53, 32
C4 10uf TAN.
C5-C17 .1uf
Y1 4 MHz
R4 330
R5 330
C3 0.1uf
HLT
TG43
SSO
DIRC
STEP
WD
WG
HLD
READY
WPRT
RAW READ
TRK Ø
IP
PUMP
VCO
WPW
RPW
ODEN
MR
WE
RE
DRQ
INTRQ
CS
TEST
TP1 TP2 TP3
W1 N.C.
W2 N.C.
MOTOR ON
SELECT Ø
SELECT 1
HD SELECT
DIRTN
STEP
WD
WG
HDLD
READY
WRT PRT
RD DATA
TRK ØØ
INDEX
P2
VR1 10K
VR2 50K
C2 5-45 pf TRIMMER
C1 .1uf
R3 1K
CR1 1N914
RP1 1K
SHORTING PLUG FOR SET UP
A- NEEDED ONLY FOR LOW VALUES OF C2
* PULL UP RESISTOR
A PROD. REL
MICRO FLOPPY DISK CONTROLLER BOARD
D
DO NOT SCALE DRAWING


SCHEMATIC- A/D
Linn Electronics, Inc.
19720 OXNARD STREET TARZANA CA 91356 (818)708-8131
SHEET 1 OF 1
4051 U15
4051 U17
6870 U13
2502 U8
HCT374 U11
LS138 U2
LF398 U16
SPARES
5MHz


6264 (x16)
+5M
HCT245
MRDX
MWRX
REVA FPLA00A1A
W1
A
B
LS00 U12
HC138
U15
U16
R1
R2
R3
10K (x3)
CONN A
C B A
RESET
+5M
+5V
DGND
C1
C2
C3
C4
C5
C6
.01F (x6)
SPARES
W1 A = FPLA UPDATE REVA (DONOT LOAD U12)
W1 B = FPLA FIRST RELEASE
TITLE
SCHEMATIC-SRAM
Drawn by
SOLMONT
Date
SHEET 1 OF 1
REV
by
Date
A
BL
SCA 225
Project
Category
Number
Revision
2
2
10
A
Linn Electronics, Inc.
18720 OXNARD STREET TARZANA, CA 91356 (818) 708-8131


REVISIONS
LTR | DESCRIPTION | DATE | APPROVED
A | REV PROD REL | 3 5 85 |
+12 E1
C3 1.0uF (TANT)
U14 PIN5 E2
U14 PIN6 E3
U1
½ TL082
E9 U14 PIN 7
-12 E4
C4 1.0uF (TANT)
+5 E5
GND E6
C2 1.0uF (TANT)
R3 100K
R8 1M 10M
C1 .1uF
R1 4.7KΩ
SYNC IN E7
C22 RHS
CR3 IN914
CR4 IN914
R4 1K
CR1 IN914
R6 18K
CR2 IN914
R7 1K
C10 .1uf
U2
½ HCT74
E10 SINT
EX SYNC E8
U26 PIN3
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TOLERANCES UNLESS OTHERWISE SPECIFIED
FRACTIONS DEC ANGLES
± — ± — ±~
APPROVALS DATE
DRAWN M. CHANEY 5-15-85
CHECKED M. CHANEY
Linn Electronics, Inc.
18720 OXNARD STREET TARZANA CA 91356 (818) 708-8131
9000 EXT SYNC MOD
SCALE —
SIZE B
DRAWING NO. 935-0592
REV A
DO NOT SCALE DRAWING
SHEET 1 OF 1

I. POWER SUPPLIES

General Description

There are three DC power supplies in the 9000; +5 volts, +12 volts and -12 volts. The +5 volts powers all logic circuits, and the +/-12 volts powers the analog circuitry. All power supplies use linear series-pass regulators.

A. +5 Volt SUPPLY

The +5V supply consists of a full-wave rectifier (CR13 & CR15), a filter capacitor (C96), and a series regulator consisting of U90, Q5 and one of the 2N3055's on the rear heatsink through connector "C". Current sensing and limiting is provided by R66 and R67. Trimmer R70 provides output voltage adjustment, and should be adjusted to +5.1V, measuring from pin 40 of U10 to pin 20 of U10.

B. +/- 12 V SUPPLY

The +/- 12 V supplies consist of a full-wave diode bridge rectifier (CR8 - CR11), filter capacitors (C95, C97), and 2 series-pass regulators. The -12V regulator is a 3 terminal IC regulator (VR1). The +12V regulator is designed for higher current rating than the -12V regulator, to accomodate the floppy disk drive. The +12V regulator consists of a 723 IC regulator (U18) and a 2N3055 pass transistor mounted on the rear panel below the 5V heatsink through connector "D".

C. BATTERY CIRCUIT

A 3.6 V battery supply is provided to power the CMOS memory chips when the AC power is turned off, and thus provide a non-volatile memory for the unit. The battery consists of 3 Ni-Cad cells which are re-charged from the +5V supply, though diode CR7, when the AC power is turned on. The battery charging current is limited by R68. With AC power applied, the CMOS memories are powered directly through CR7 from the +5V power supply.