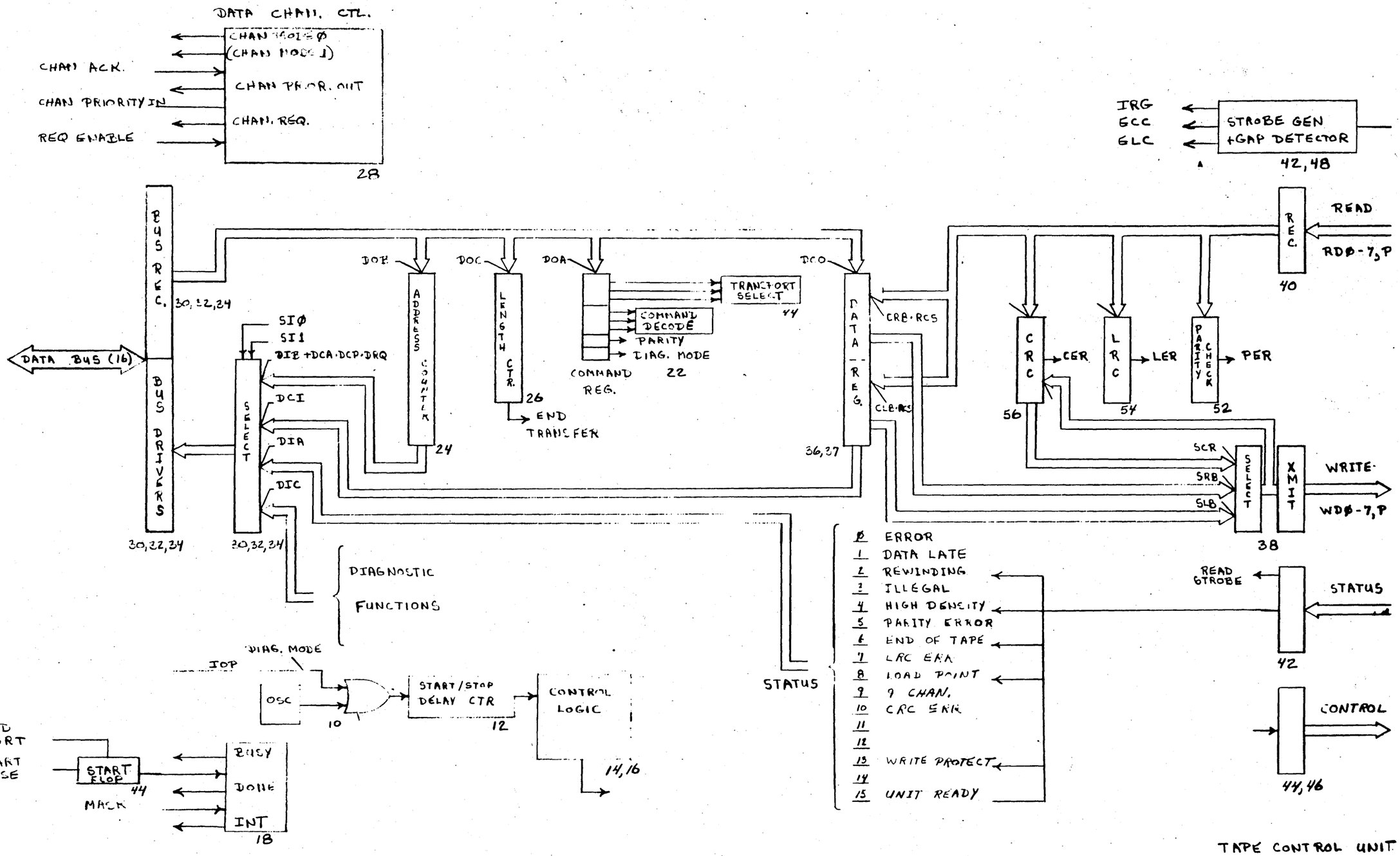
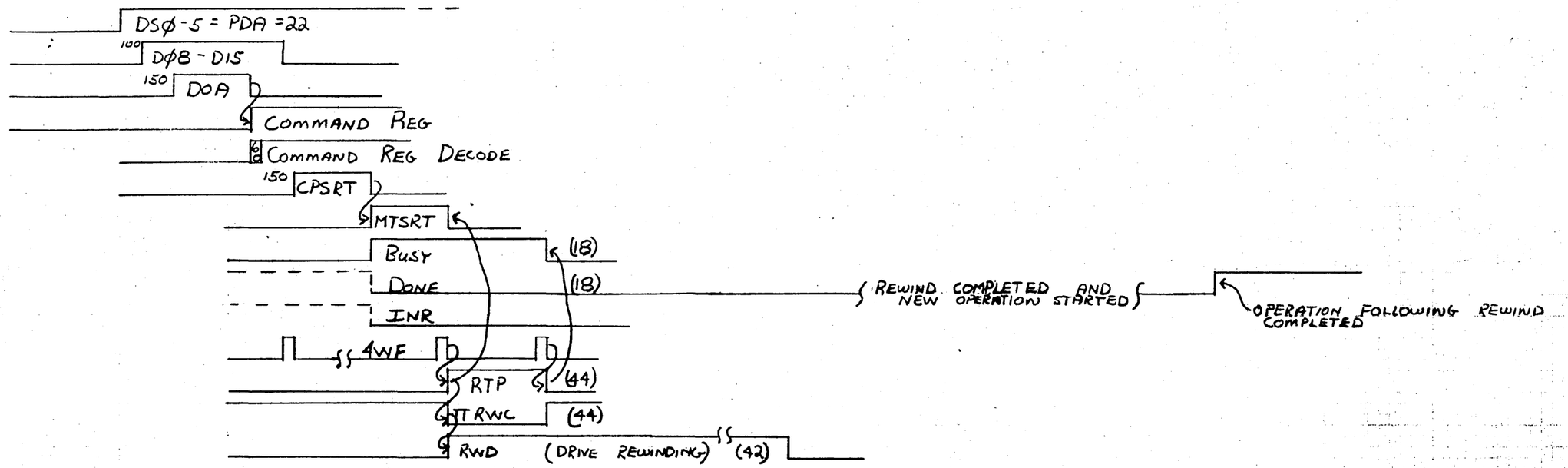


TAPE CONTROL UNIT
BLOCK DIAGRAM.

REV. B DJR 7/20/71



OBSOLETE Per ECO 881

DRAWN	DB	7/6
CHECK		
APPRV		
ENG		
PROMGR		

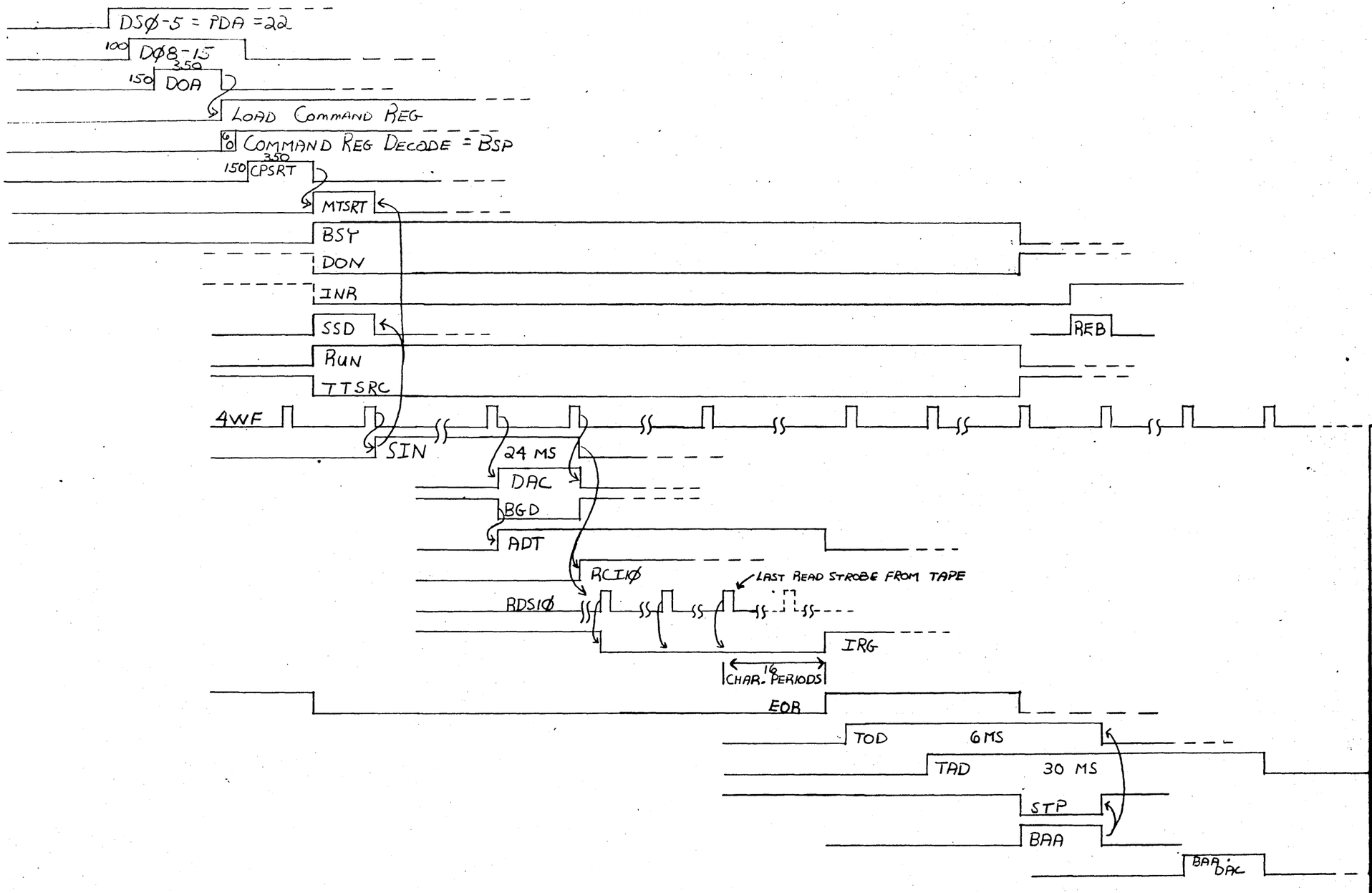
ENTREX INC.
169 MIDDLESEX TURNPIKE
BURLINGTON MASS 01803

TCU Timing Diagram

Rewind

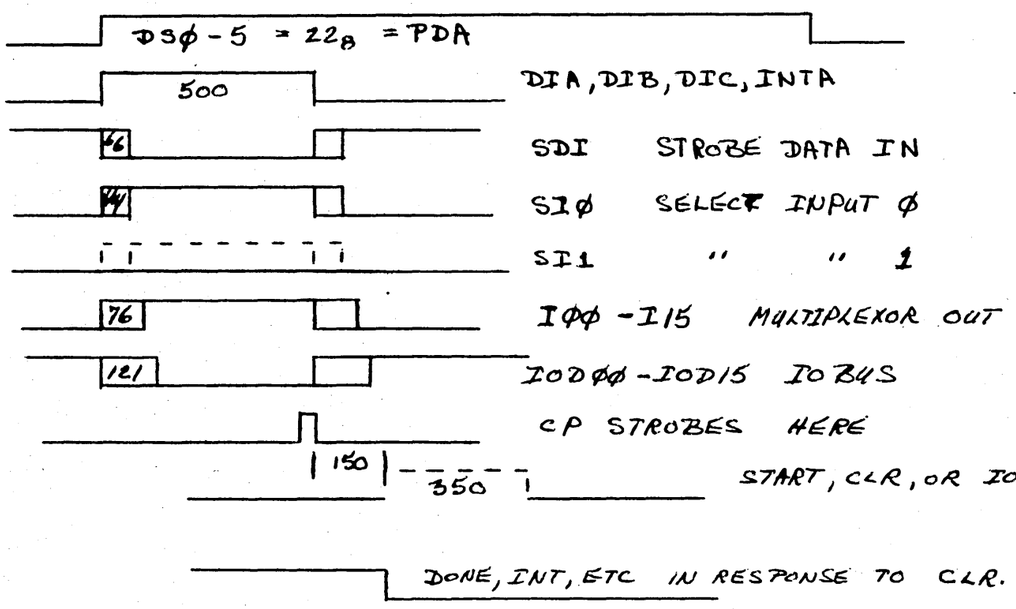
SCALE	SIZE	CAT	SUB CAT	DRAWING NUMBER	DASH #	REV
				B-01070		

DO NOT SCALE PRINT | SHEET 1 OF



OBS

DRAWN	DB	7/27	ENTREX INC.		DASH #		REV B
CHECK			168 MIDDLESEX TURNPIKE				
APPRV			BURLINGTON MASS 01803				
ENG			TCU Timing Diagram		SUB CAT	DRAWING NUMBER	SHEET 3 OF
PROMGR			Backspace		SIZE	B-01070	
					SCALE	DO NOT SCALE PRINT	



DRAWN	JY 0SR	DATE 7/30/71
CHECK		
APPRV		
ENG		
PROMGR		

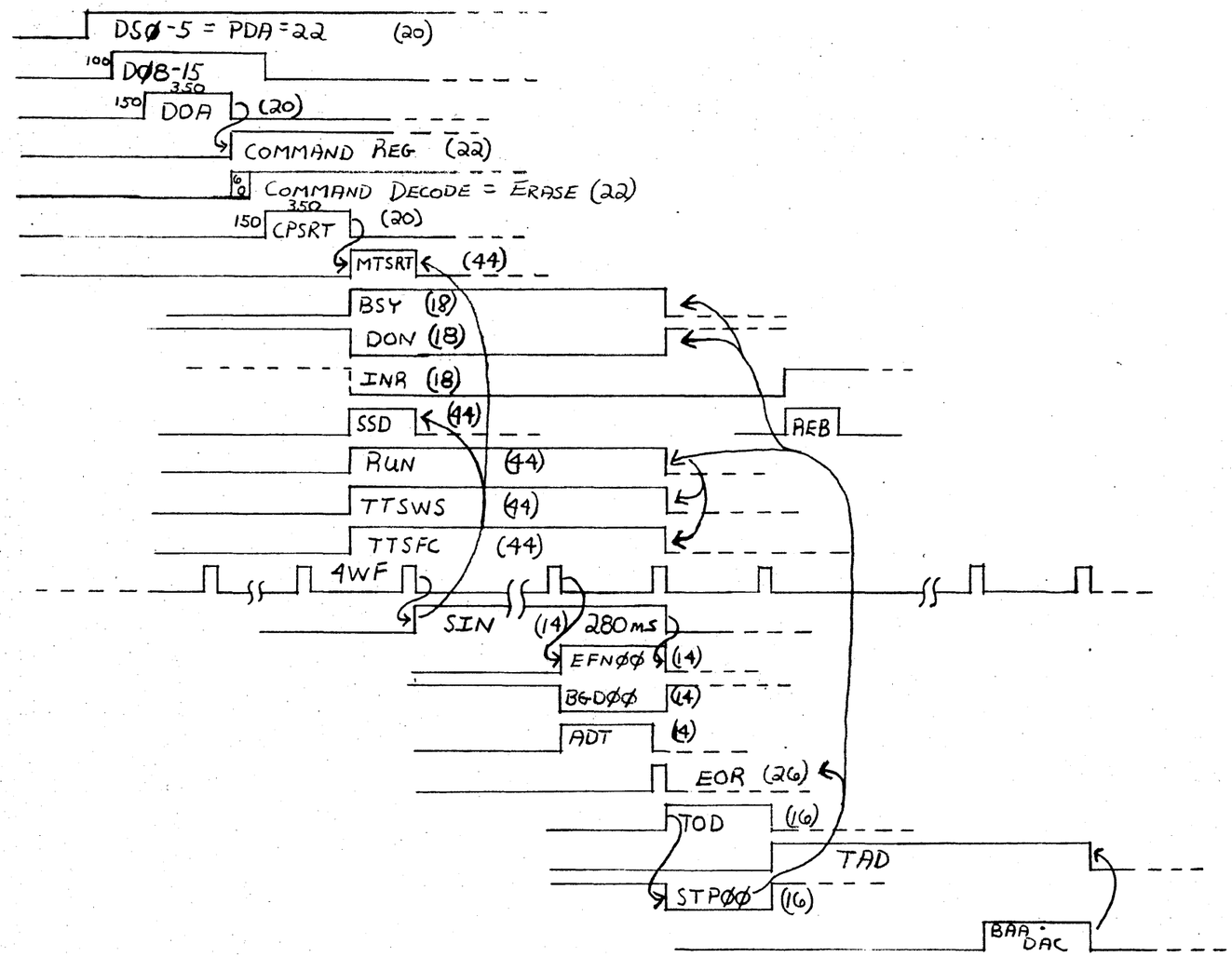
ENTREX INC.
168 MIDDLESEX TURNPIKE
BURLINGTON MASS 01803

TCU TIMING DIAG
READ STATUS(DIA), ADDRESS(DIB), OR DIAGNOSTICS(DIC)

SCALE	SIZE	CAT	SUB CAT	DRAWING NUMBER	DASH #	REV
				B-01070		

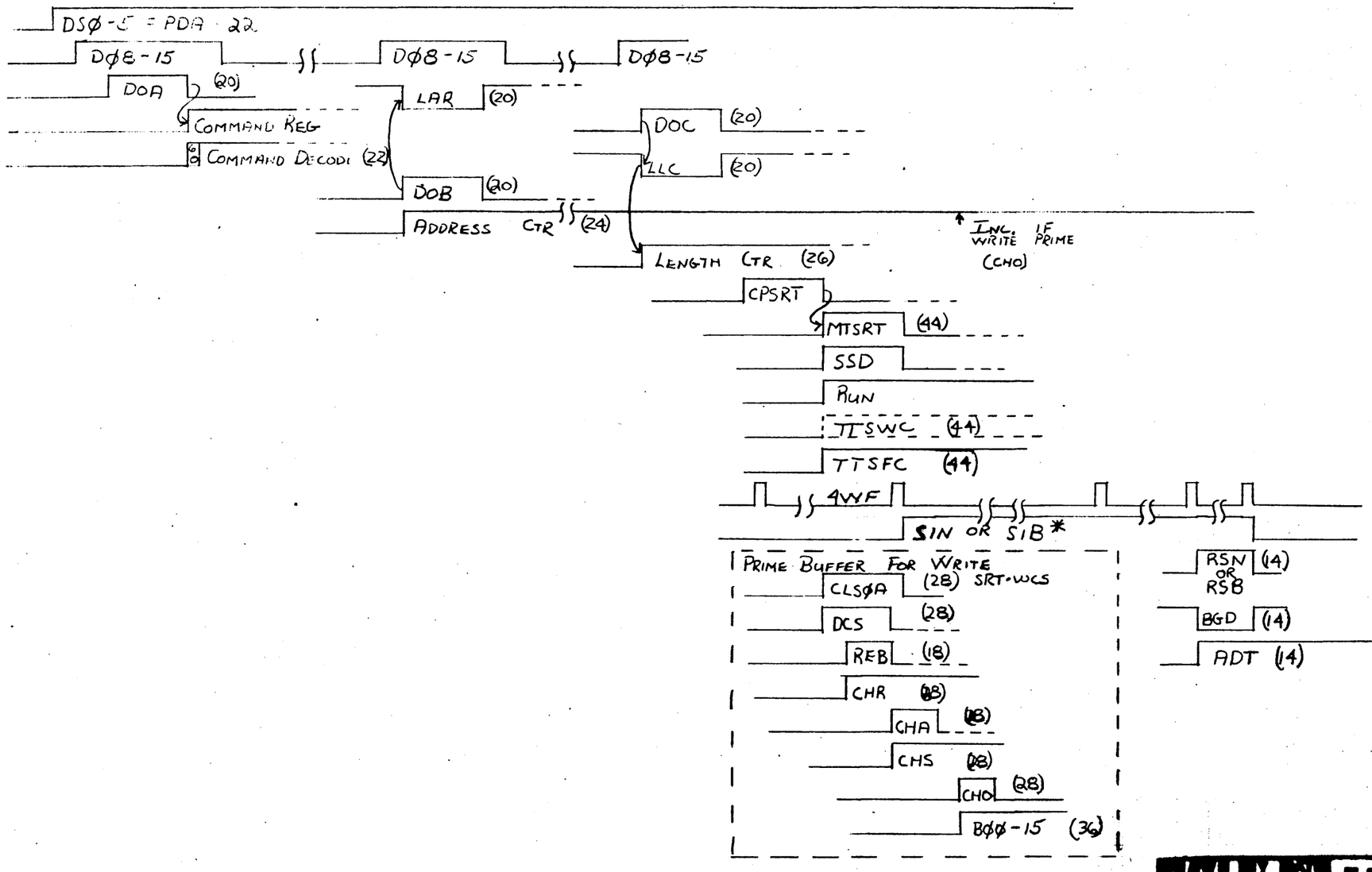
DO NOT SCALE PRINT — SHEET 2 OF

0835



OBS

DRAWN	BY DB	DATE 7/26	ENTREX INC. 168 MIDDLESEX TURNPIKE BURLINGTON MASS 01803					
CHECK								
APPRV								
ENG								
PROMGR			TCU TIMING DIAGRAM ERASE					
			SCALE	SIZE	CAT	SUB CAT	DRAWING NUMBER	DASH #	REV
							B-01070		8
			DO NOT SCALE PRINT				SHEET 4 OF		



* SIN FOR READ = 24 MS
WRITE = 46 MS
SIB FOR READ = 120 MS
WRITE = 280 MS

OBS

	BY	DATE
CHECK		
APPRV		
ENG		
PROMGR		

ENTREX INC.
168 MIDDLESEX TURNPIKE
BURLINGTON MASS 01803

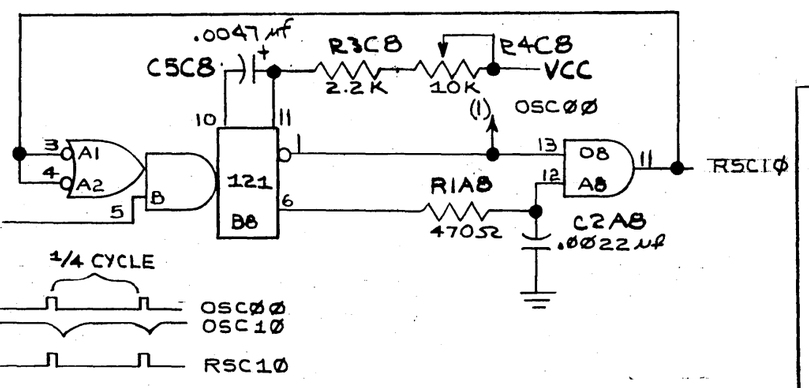
TCU TIMING DIAGRAM

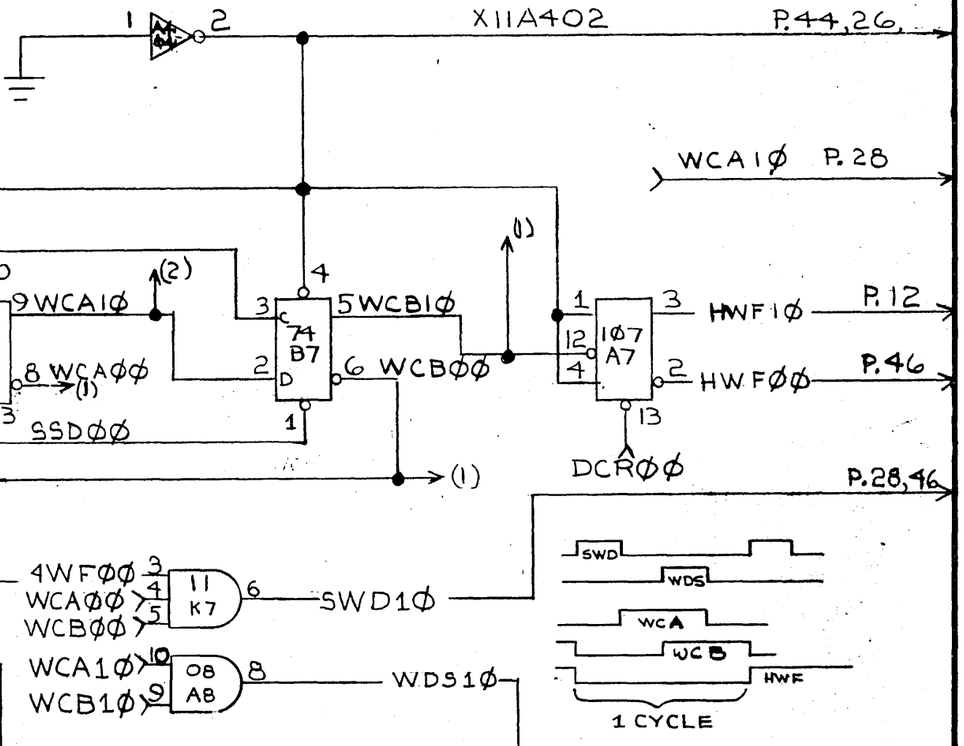
READ/WRITE INIATE SEQUENCE

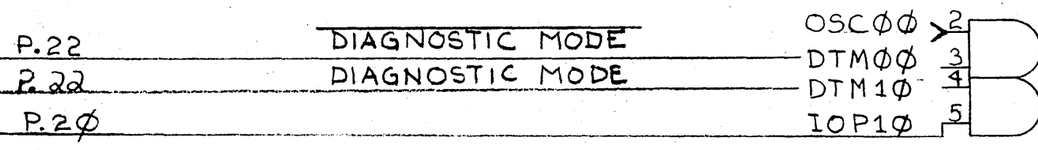
SCALE	SIZE	CAT	SUB CAT	DRAWING NUMBER	DASH ##	REV
				B-01070		8

DO NOT SCALE PRINT | SHEET 5 OF

TAPE SPEED IP.S / TRANS RATE	12.5 / 10K HZ	25 / 20K HZ	37.5 / 30K HZ
4WF (OCS)	40 / 25μs	80 / 12.5μs	120 / 8.3μs







OBS

REVISIONS.			
B	REVISED SHT'S 26, 32, & 44 & 58		
B	ER # 35	5/6/72	DJR
C	ECO 225 SH P34	6/13/72	DJR

D	ECO 170 SH P42	6/19/72	DJR
E	ECO 288 SH P40	6/19/72	DJR
F	ECO 342 SH 44	6/19/72	DJR
G	ECO 363 SH 10, 14, 18, 20 22, 48	7/6/72	DJR

H	ECO 446 SH. P18-20-30-38-46	8/22/72	DJR
I	ECO 556 SH. 50	10/4/72	DJR
J	ECO 763 SH. 48	4/19/73	EB

REVISIONS			
NO.	DATE	BY	
G	ECO 363 7/6/72	DJR	
2			
3			
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ENTREX INC.
113 HARTWELL AVE., LEXINGTON, MASS.

TAPE CONTROLLER
WRITE TIMING & MAIN OSC.

DRAWN BY	SCALE	MATERIAL
E. TOLEDO	++	
CHK'D	DATE 8-26-70	DRAWING NO. B-01070
TRACED	APP'D	

NATIONAL NO. 185 —11X17

2.81

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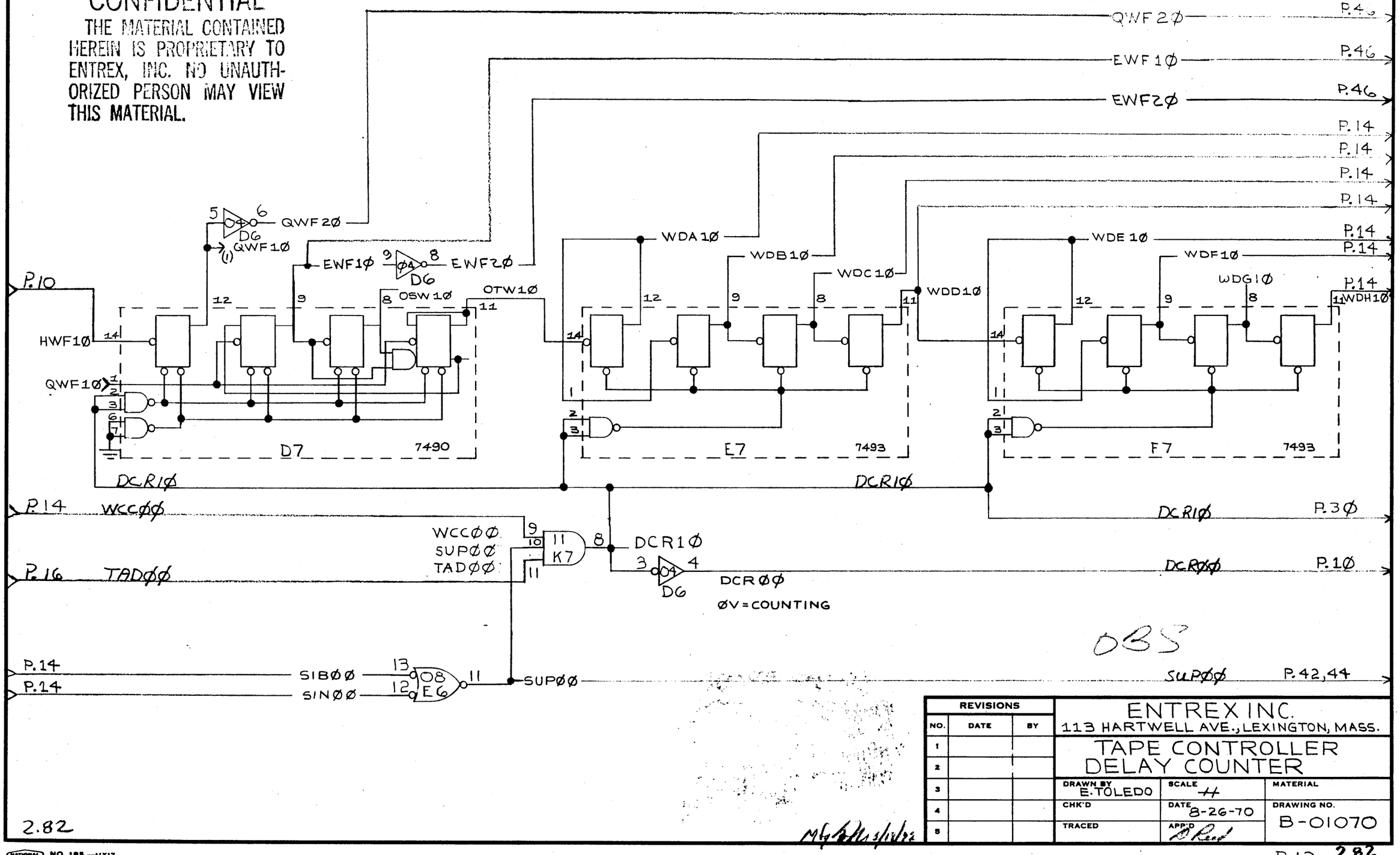

REVISIONS		
NO.	DATE	BY
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ENTREX INC.
113 HARTWELL AVE., LEXINGTON, MASS.

TAPE CONTROLLER
DELAY COUNTER

DRAWN BY E.TOLEDO	SCALE ++	MATERIAL
CHK'D	DATE 8-26-70	DRAWING NO. B-01070
TRACED	APP'D	

2.82

WCRØØ P.46

P.44 SSD1Ø

P.42 LDP2Ø

SSD1Ø 12, P.42 LDP1Ø 13 → 08 M7 → 11

11 → 1, 12 → 107 L6 → 3 SIB1Ø, 2 SIBØØ, 4, 13 → (1)

P.18 CORØA

P.1Ø 4WF1Ø

P.22 RCS1Ø → 1

P.12 WDF1Ø → 2

P.12 (3) WDE1Ø → 4, 5

P.12 WDD1Ø 9, P.12 WDC1Ø 10 → 08 E6 → 8

(3) DAC1Ø → 1

WCS1Ø 2, 13 → 10 J6 → 12 WFB

1, 2, 13 → 10 H6 → 12 → RSB1Ø (1)

WFB → EFNØØ

P.12 WDH1Ø (1)

P.12 WDB1Ø

P.12 WDA1Ø

P.18 CRS2Ø → K3-1

P.22 ECS1Ø → H6-10

P.26 EORØØ → M6-1

P.26 ENDØØ → M6-3

P22 SRC1Ø → H7-5

P.22 WCS1Ø → (3)

WDB1Ø 4, WDA1Ø 5 → 08 E6 → 6

BAAIØ

SSD1Ø 4, LDP2Ø 5 → 08 M7 → 6

8, 9 → 107 L6 → 5, 6 SINØØ, 11, 10

SRC 1Ø → 5

4 → 00 H7 → 6 RFNØØ

DAC 1Ø → 9

ECS 1Ø 10, WDH 1Ø 11 → 10 H6 → 8 EFNØØ (1)

3, 4 → 10 H6 → 6 RSN1Ø

WCS 1Ø 13, WDE1Ø 12, WDC 1Ø 10 → 40 F6 → 8 WFNØØ

RSB1Ø 9, SIB1Ø 10, SIN 1Ø 1, 13 → 51 C7 → 8

BGDØØ

END ØØ 3 → C 74 D M6 → 5, 6

4 → 2 XØØ

1 → EURØØ 9, CORØA 10 → Ø8 M7 → 8

P.26,28,50 ADT1Ø

P46 ADTØØ

X11 L7Ø8 → 10 → C 74 D M6 → 9 WCC1Ø P.46

11 → 12 WCS1Ø

8 WCCØØ P.12

13

CRS2Ø 1, WCR1Ø 2 → 08 K3 → 3

DAC1Ø P.16

SIBØØ P.12

SINØØ P.12

P.16

BAAIØ P.16

L7 04 9 → 8 X11L7Ø8 → P.48

(1)

685

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REVISIONS			
NO.	DATE	BY	
G	ECO 363 7/6/72	DSR	
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ENTREX INC.
113 HARTWELL AVE., LEXINGTON, MASS.

TAPE CONTROLLER
TURN ON DELAY LOGIC

DRAWN BY E.TOLEDO	SCALE -H-	MATERIAL
CHK'D	DATE 8-26-70	DRAWING NO. B-01070
TRACED	APP'D	

NATIONAL NO. 185 —11X17

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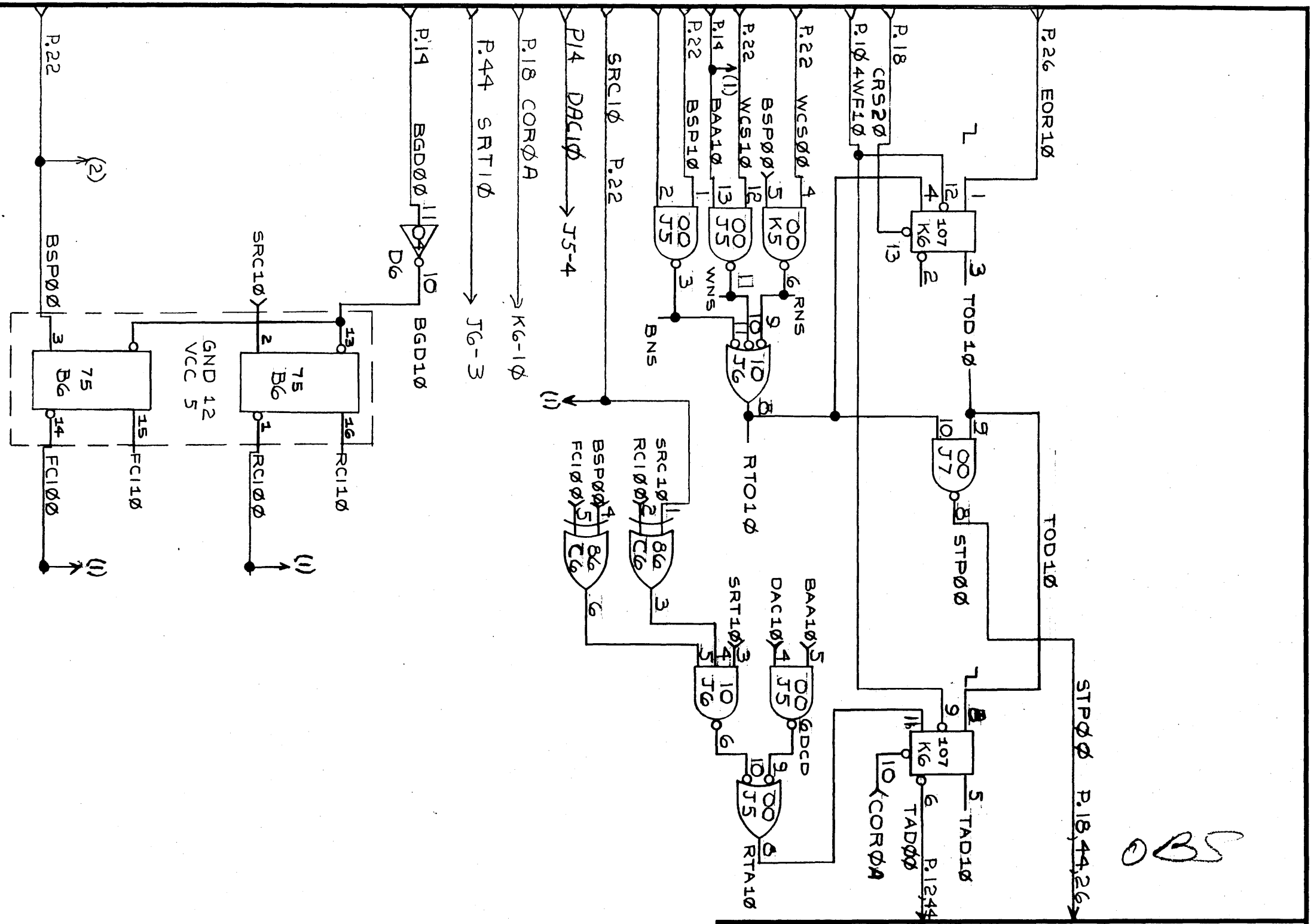

REVISIONS		
NO.	DATE	BY
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ENTREX INC.
113 HARTWELL AVE., LEXINGTON, MASS.

TAPE CONTROLLER TURN OFF DELAY LOGIC

DRAWN BY E.TOLEDO	SCALE 4	MATERIAL
CHK'D	DATE 8-25-70	DRAWING NO. B-01070
TRACED	APP'D D Reed	

Mfg [illegible] 2/15/72

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F2 11 04 1Ø — X11F210 — P26
(3)
INPIØ P.34
REBIØ P.28
Vcc 330 RG4R1
390 RG5R1
A95 CUIPO ØØ P.34
CUINR ØØ B29
INR 1Ø
INR ØØ
INTERRUPT REQ.
DONIØ P.50
CRS 2Ø P.28,48,14,16
CUSEBIØ P.50
CRSØØ P.54,P.26,52
BSYIØ P20, P.28
BSYØØ P.20 P44
CORØA P.16,14,22,24,
CORØB P.26,50,44
BSTØØ P10,28,44

C66D8 100uf — R5D8 30K — Vcc
P.2Ø
SRT2Ø
RSTØØ
RWSØØ
122 E8
OPI1Ø
OPIØØ
X11L7Ø8
BSY1Ø
DONØØ
00 H3
00 H3

P.22 RWSØØ
CPMSKØØ A38 — F1 04 — X11F210
DEV. INTERRUPT DISABLE
P.32 DIØ1Ø
74 K2
DID1Ø
DIDØØ
X11F210 1Ø
74 J2
DON 1Ø
DON ØØ
(1)
03 L1
A80 CUSE DØØ
RWE1Ø
BSY1Ø
08 J3
CRSØØ
CLEAR, RESET, OR START
CPRST1Ø A70
RG1L1 1K
1K R2C8
VCC
100 pf C83L1
SRTØØ P.44
PDA1Ø
RELEASE REL1Ø
74 J2
(2)
BSY 1Ø
BSYØØ
XØØ
03 L1
A82 CUSE BØØ
M1
CUSEB1Ø
AUB1Ø P.20
AUB1Ø
CPCLR1Ø A50
10 D1
CTDØØ
CLEAR THIS DEVICE
1K R54D1
100 pf C75D1
08 J3
CORØA
STPØØ
RTPØØ
08 A8
REL 1Ø
(1)
OBS

P.2Ø PDA1Ø — L1-2&13
P.22 RWE1Ø — J3-9
P.16 STPØØ — A8-1
P.44 RTPØØ

REVISIONS			
NO.	DATE	BY	
G	ECO 363 7/6/72	D&R	
H	ECO 444 8/22/72	D&R	
3			
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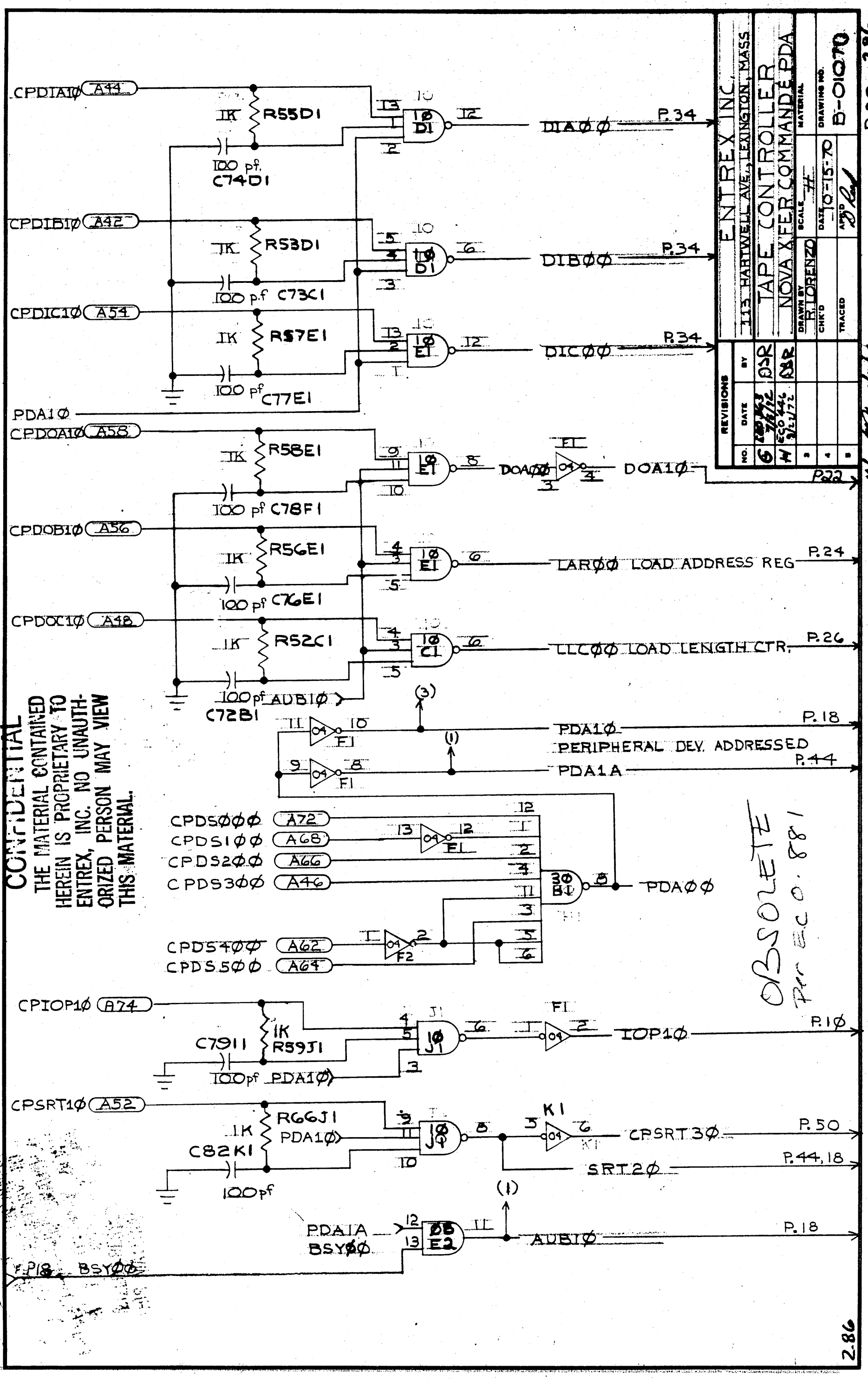
ENTREX INC.
113 HARTWELL AVE., LEXINGTON, MASS.
TAPE CONTROLLER
BUSY, DONE & INTERRUPT LOGIC

DRAWN BY E. TOLEDO	SCALE H	MATERIAL
CHK'D	DATE 8-20-70	DRAWING NO. B-01070
TRACED	APP'D D Red	


CPDIA1Ø A44
1K R55D1
100 pf. C74D1
CPDIB1Ø A42
1K R53D1
100 p.f C73C1
CPDIC1Ø A54
1K R57E1
100 pf C77E1
PDA1Ø
CPDOA1Ø A58
1K R58E1
100 pf C78F1
CPDOB1Ø A56
1K R56E1
100 pf C76E1
CPDOC1Ø A48
1K R52C1
100 pf AUB1Ø
C72B1
D1
E1
C1
F1
F2
J1
K1
B1
DIAØØ P.34
DIBØØ P.34
DICØØ P.34
DOAØØ
DOA1Ø P22
LARØØ LOAD ADDRESS REG P.24
LLCØØ LOAD LENGTH CTR. P.26
PDA1Ø P.18
PERIPHERAL DEV. ADDRESSED
PDA1A P.44
CPDSØØØ A72
CPDS1ØØ A68
CPDS2ØØ A66
CPDS3ØØ A46
CPDS4ØØ A62
CPDS5ØØ A64
PDAØØ
CPIOP1Ø A74
C79I1 1K R59J1
100pf PDA1Ø
IOP1Ø P.1Ø
CPSRT1Ø A52
1K RG6J1
C82K1 100pf
PDA1Ø
CPSRT3Ø P.50
SRT2Ø P.44,18
PDA1A
BSYØØ
AUB1Ø P.18
P.18 BSYØØ
ENTREX INC.
113 HARTWELL AVE., LEXINGTON, MASS.
TAPE CONTROLLER
NOVA X'FER COMMANDER PDA
DRAWN BY R. LORENZO
CHK'D
TRACED
SCALE
DATE 10-15-70
APP'D
MATERIAL
DRAWING NO. B-01070
REVISIONS
NO. DATE BY
6 7/8/72 DSR
5 EC0446 9/27/72 DSR
P.20 2.86
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A	2/25/72	AW
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ENTREX INC.
113 HARTWELL AVE., LEXINGTON, MASS.

TAPE CONTROLLER
LENGTH COUNTER & INC. LOGIC

DRAWN BY E. TOLEDO	SCALE 4"	MATERIAL	
CHK'D	DATE 8-24-70	DRAWING NO.	B-01070
TRACED	APP'D		

P. 26 2.89

P.50 ILCØØ

P48 IRG1Ø
P.22 ECSØØ
P.14 (2) ADT1Ø
P.22 ECS1Ø
4WF1Ø
P.10 P.18 XIIA402
P.16 STPØØ
P.18 CRSØØ (1)

ØØ D5 · 10 A6 · ØØ D5 · 74 E4 · 08 E6

EOR1Ø P.16
EORØØ P.14
STP. CRS

P.42 RDS1Ø
P22 RCS1B
ADT1Ø
P22 WCS1Ø
P10 WDS1Ø
P.28 XIIH504

10 A6 · 10 A6 · ØØ D5 · 107 E5

CDS1Ø
ILB1Ø
ØØ D4 (1) INL1Ø
ODD1Ø P.28,38, 32
ODDØØ
CRSØØ
CCLØØ
ØØ D4 ILB1Ø (1)
ODDØØ P.28,

XIIW11Ø P.32
INL1Ø
P34 D151Ø
P34 14
P34 13
P34 12
LLCØØ
P.21 COR1Ø

193 T2 · 193 W2 · 193 P2

L151Ø 14 13 12
D111Ø 1Ø Ø9 Ø8 LLCØØ
L111Ø 1Ø Ø9 Ø8
DØ71Ø Ø6 Ø5 Ø4 LLCØØ
L071Ø Ø6 Ø5 Ø4
ENDØØ P.14

P.34
P18 X11F210
P20 LLCØØ
09 · 74 L2
CCL1Ø
P.3Ø DØØ1Ø
P.18 CORØB (1)
P.28 CHOØØ

CHIØØ
CHOØØ
10 A1
INCREMENT ADDRESS
INA1Ø P24

P30 DØ41Ø
P30 51Ø
P32 61Ø
P32 71Ø
P32 81Ø
P32 91Ø
P32 1Ø1Ø
P32 111Ø

NO. 185—11X17

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P42 RDS1Ø (1)
P10 SWD1Ø (1)
P26
RRS1Ø
ODD1Ø
CH0ØØ
CRB1Ø
CLB1Ø
P18
CRB1Ø P37,36
CLB1Ø P37,36
SRT 1Ø
WCS1Ø
SWD1Ø
ADT1Ø
ODD 1Ø
RCS 1A
RDS 1Ø
CLSØA
CLS 1Ø
CLSØC
RRS 1Ø
A4
X11A408
X11H5Ø4 P.26
DAL1Ø P30
DALØØ P50
P22
RCS1B
ODDØØ
WCS1Ø
WCA1Ø
ADT1Ø
P.10
P14
P.44 SRT1Ø
X11A402
DAL1Ø
DALØØ
CRS2Ø
REB1Ø
X11H5Ø4
CLS1Ø
xØØ
DCS 1Ø
CHR1Ø
CPI1Ø
CHRØØ
RSTØØ
RCSØØ
X11A4Ø8
B35 CUCHRØØ
CHA1Ø
RCS 1Ø
B17 CUCMØØØ
CHS1Ø P.34
CPCHO1Ø B33
1K R49L3
100pf C52L3
CHOØØ P.26
P18
BSY1Ø
RSTØØ
CHR1Ø
CHA1Ø
CPI 1Ø
CPCHAØØ A60
1K RGØJ1
100pf C8ØJ1
CHA1Ø P.34
CPCPIØØ A54
CPI1Ø
CHRØØ
Vcc
RG3M1 330
A93 CUCPOØØ
390 RG2M1
P22 RCSØØ (1)
P22 RCS1A (2)
P.18 RSTØØ (3)

REVISIONS		
NO.	DATE	BY
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ENTREX INC.
113 HARTWELL AVE., LEXINGTON, MASS
TAPE CONTROLLER
DATA CHANNEL CONTROLS

DRAWN BY E. TOLEDO	SCALE ##	MATERIAL
CHK'D	DATE 8-26-70	DRAWING NO. B-01070
TRACED	APP'D	

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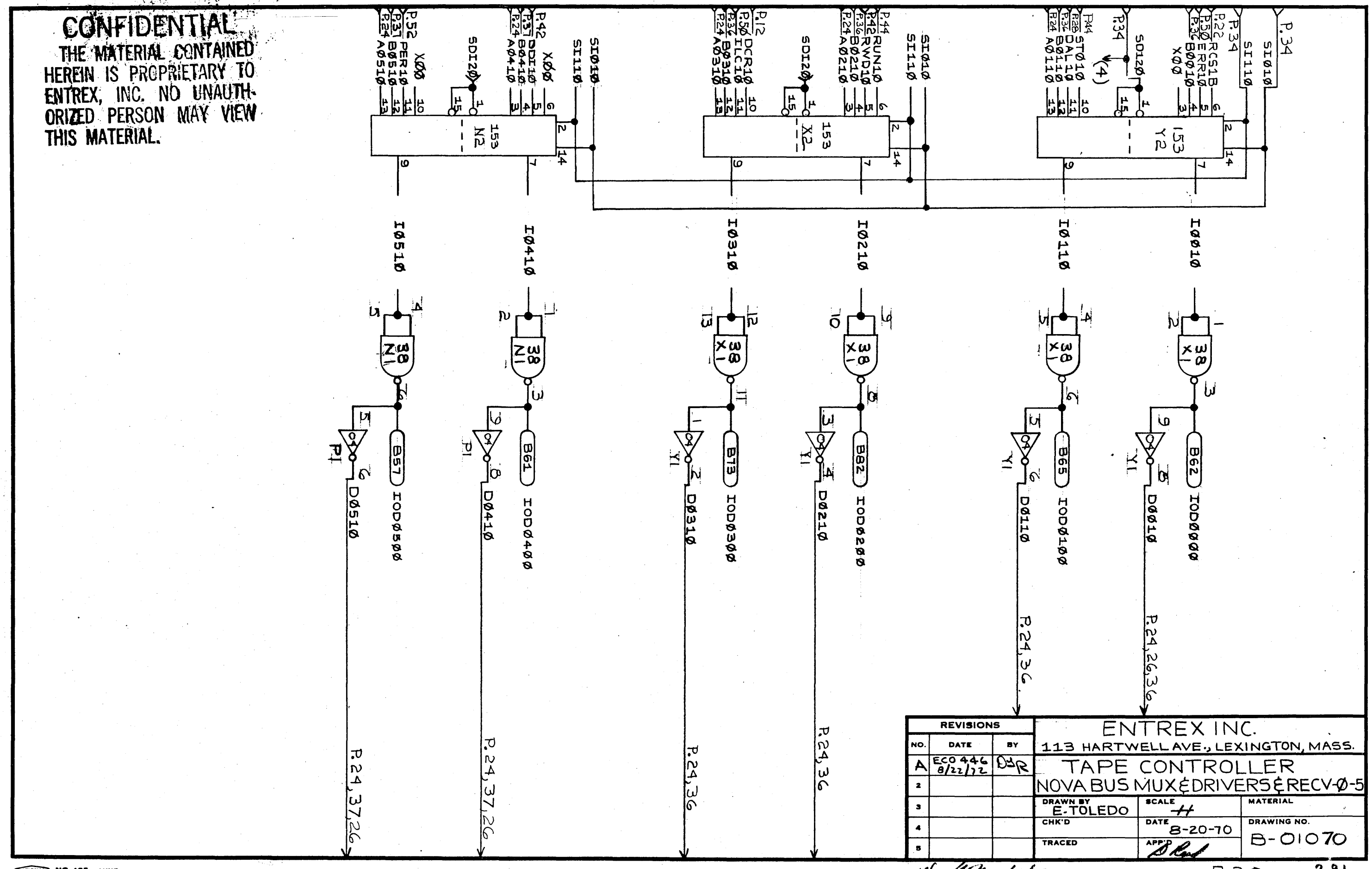

REVISIONS			
NO.	DATE	BY	
A	ECO 446 8/22/72	DJR	
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ENTREX INC.
113 HARTWELL AVE., LEXINGTON, MASS.

TAPE CONTROLLER
NOVA BUS MUX & DRIVERS & RECV-Ø-5

DRAWN BY	SCALE	MATERIAL
E-TOLEDO	H	
CHK'D	DATE 8-20-70	DRAWING NO. B-01070
TRACED	APP'D	

Mfg 8/18/72

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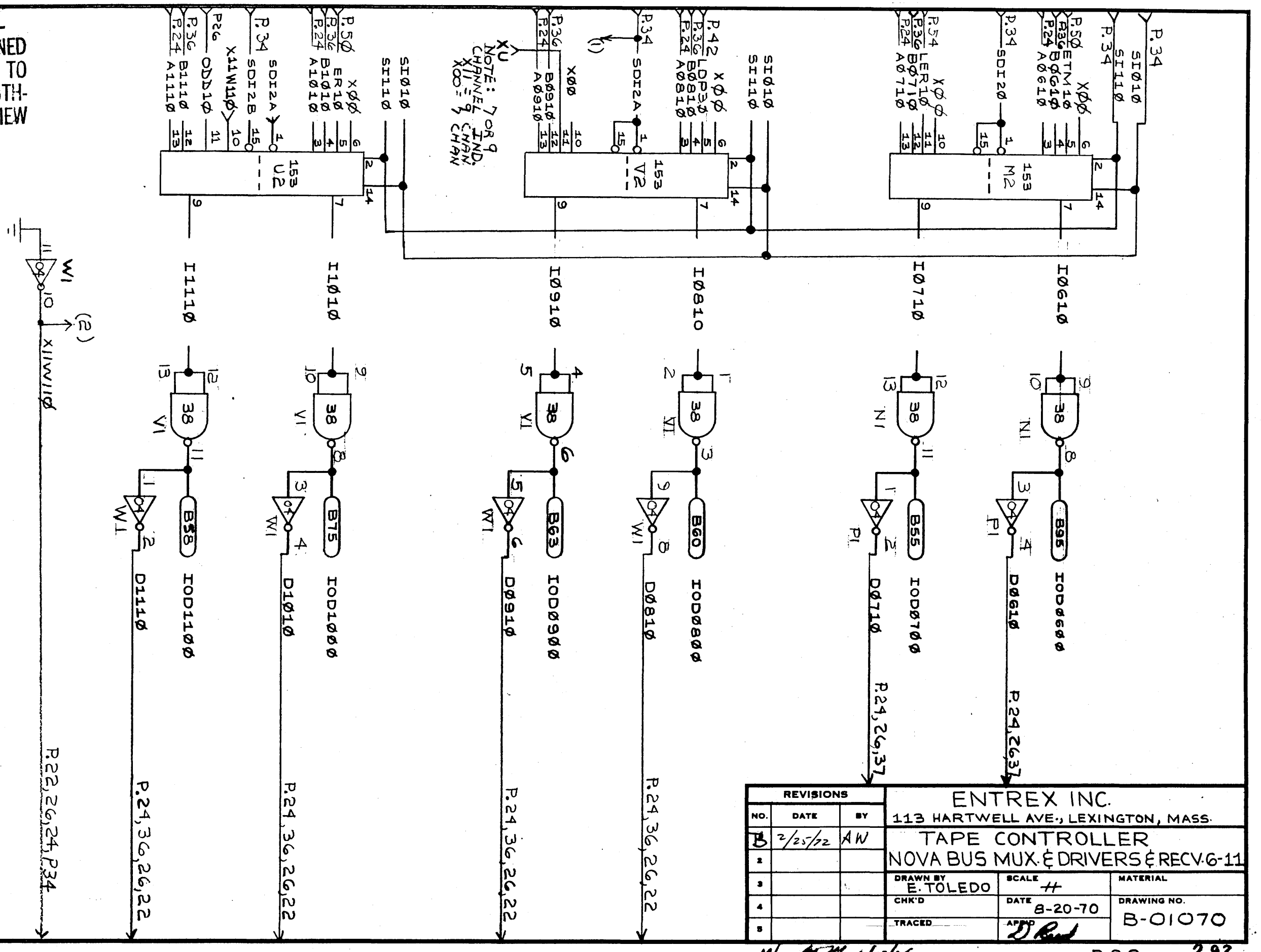

REVISIONS		
NO.	DATE	BY
B	2/25/72	AW
2		
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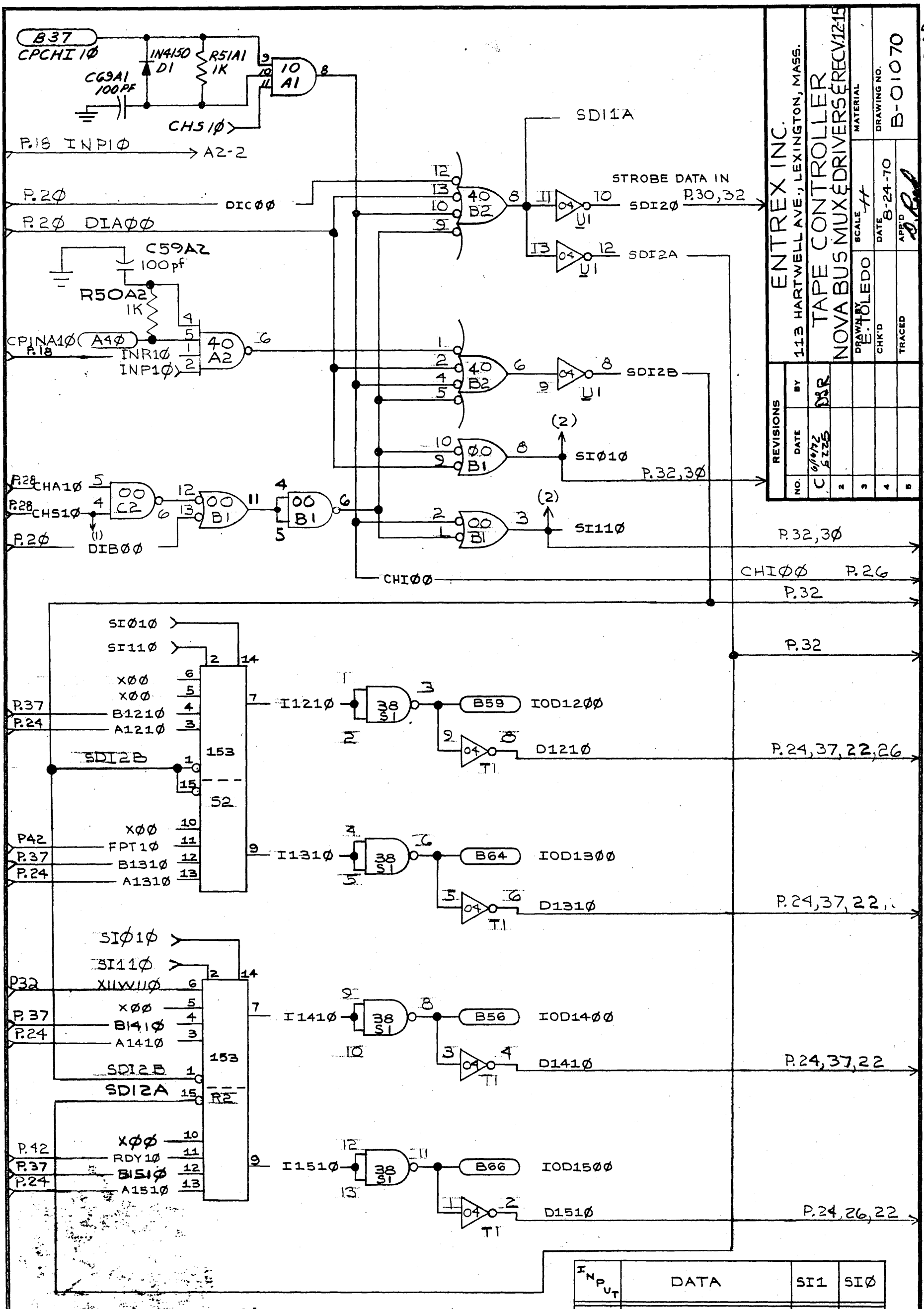
ENTREX INC.
113 HARTWELL AVE., LEXINGTON, MASS.

TAPE CONTROLLER
NOVA BUS MUX & DRIVERS & RECV 6-11

DRAWN BY	SCALE	MATERIAL
E. TOLEDO	#	
CHK'D	DATE 8-20-70	DRAWING NO. B-01070
TRACED	APPD	

Mfg 2/10/72



INPUT	DATA	SI1	SIØ
Ø	DEV. ADD	Ø	Ø
	DIAG. DATA	Ø	Ø
1	STATUS	Ø	1
2	INPUT DATA	1	Ø
3	MEM. ADD	1	1
	ADD. RESIDUE	1	1

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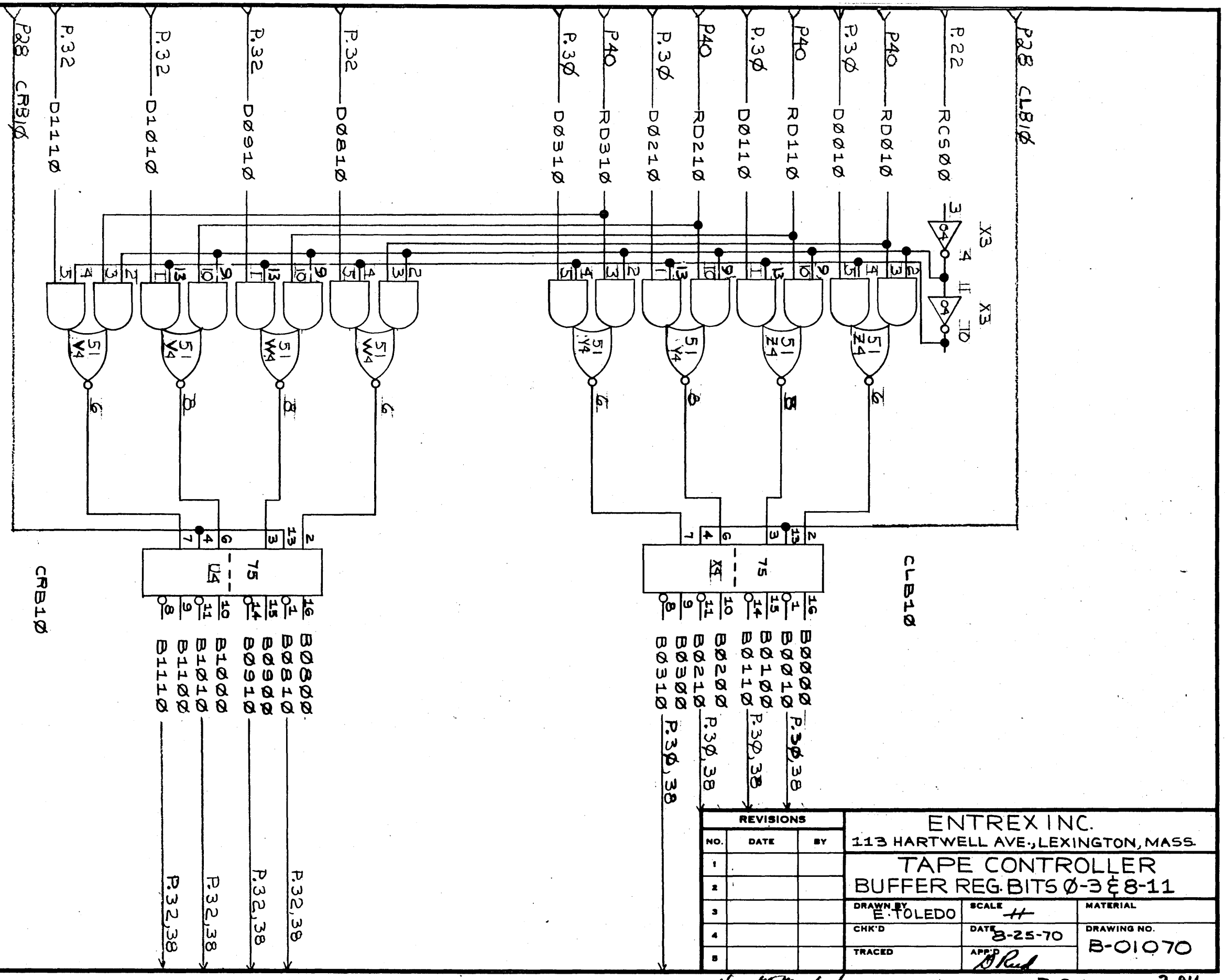

REVISIONS		
NO.	DATE	BY
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ENTREX INC.
113 HARTWELL AVE., LEXINGTON, MASS.

TAPE CONTROLLER
BUFFER REG. BITS Ø-3 & 8-11

DRAWN BY E. TOLEDO	SCALE H	MATERIAL
CHK'D	DATE 8-25-70	DRAWING NO. B-01070
TRACED	APP'D	

2.94

NO. 185—11X17

P. 36

2.94

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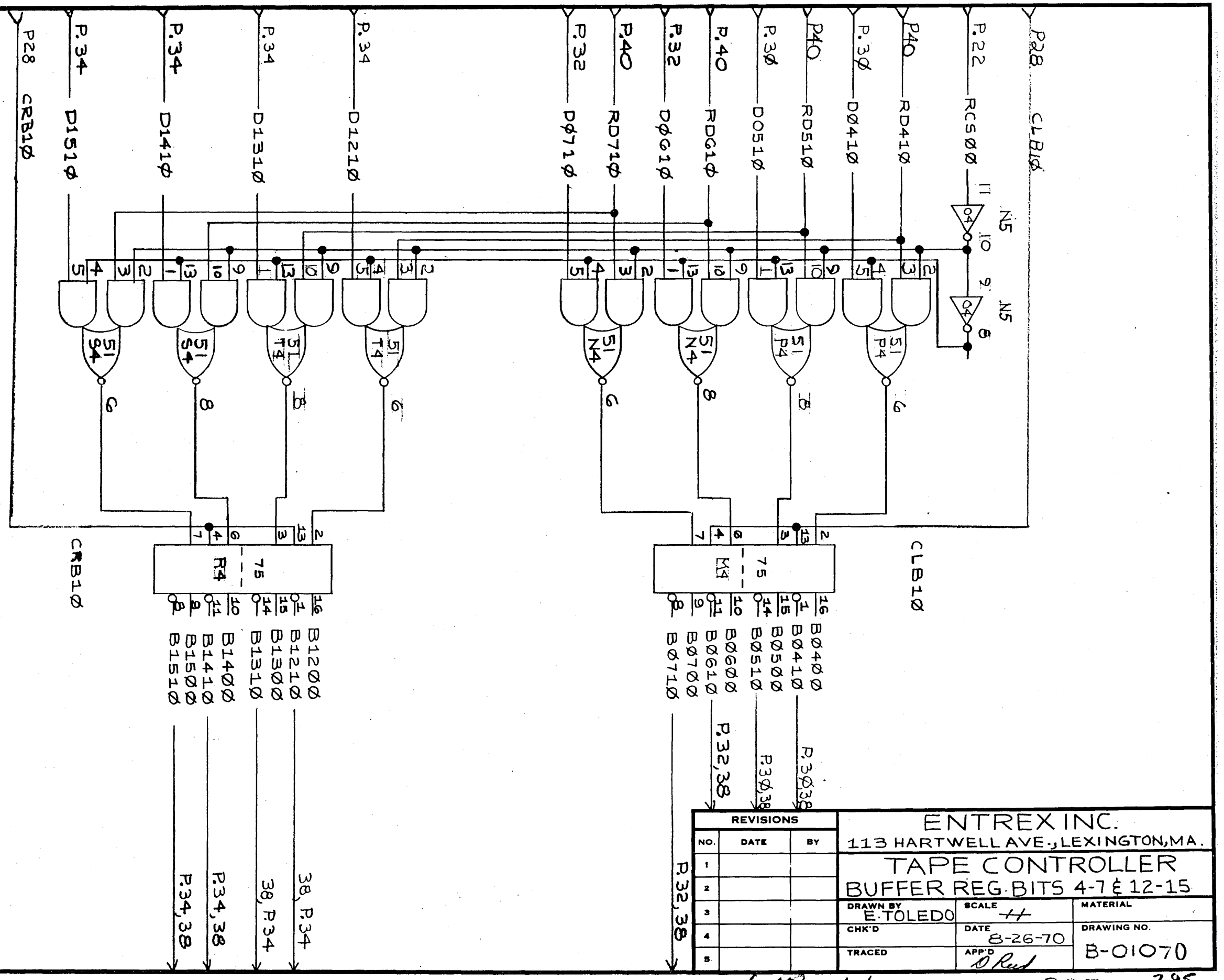

REVISIONS		
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ENTREX INC.
113 HARTWELL AVE., LEXINGTON, MA.

TAPE CONTROLLER
BUFFER REG. BITS 4-7 & 12-15

DRAWN BY E. TOLEDO	SCALE +4	MATERIAL
CHK'D	DATE 8-26-70	DRAWING NO. B-01070
TRACED	APP'D D Reed	

P.46 SCRØØ
P26 ODD1Ø
P.56 CRØØØ
P.36 BØ81Ø
P.36 BØØ1Ø
P.56 CR1ØØ
P.36 BØ91Ø
P.36 BØ11Ø
P.56 CR21Ø
P.36 B1Ø1Ø
P.36 BØ21Ø
P.56 CR3ØØ
P.36 B111Ø
P.36 BØ31Ø
P.56 CR41Ø
P.37 B121Ø
P.37 BØ41Ø
P.56 CR5ØØ
P.37 B131Ø
P.37 BØ51Ø
P.56 CR6ØØ
P.37 B141Ø
P.37 BØ61Ø
P.56 CR7ØØ
P.37 B151Ø
P.37 BØ71Ø

10 9 N.7 8 SLB1Ø

153 (14 A B2) — 0 1 2 3 — 15 10 0 1 2 3 — 7 9

153 (14 2) — 6 5 4 3 — 1 15 10 11 12 13 — 7 9

153 (14 2) — 6 5 4 3 — 1 15 10 11 12 13 — 7 9

153 (14 2) — 6 5 4 3 — 1 15 10 11 12 13 — 7 9

S6

R5

R6

WD0 P.56,52
WD1 P.52,56
WD2 P.52,56
WD3 P.52,56
WD4 P.52,56
WD5 P.52,56
WD6 P.52,56
WD7 P.52,56

12 13 38 T8 11 D-H D-J TTWDØTØ
9 10 38 T8 8 D-K D-L TTWD1TØ
1 2 38 T8 3 D-M D-N TTWD2TØ
4 5 38 T8 6 D-P D-R TTWD3TØ
12 13 38 S8 11 D-S D-T TTWD4TØ
9 10 38 S8 8 D-U D-V TTWD5TØ
1 2 38 S8 3 D-W D-X TTWD6TØ
4 5 38 S8 D-Y D-Z TTD7TØ

ENTREX INC.
113 HARTWELL AVE., LEXINGTON, MASS.
TAPE CONTROLLER
TRANSPORT WRITE MUX & DRIVERS
DRAWN BY E. TOLEDO
CHK'D
TRACED
SCALE —
DATE 8-26-70
APP'D
MATERIAL
DRAWING NO. B-01070
P. 38
2.96

REVISIONS

NO.	DATE	BY
A	ECO 446 10/27/71	DSR
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4/11/72

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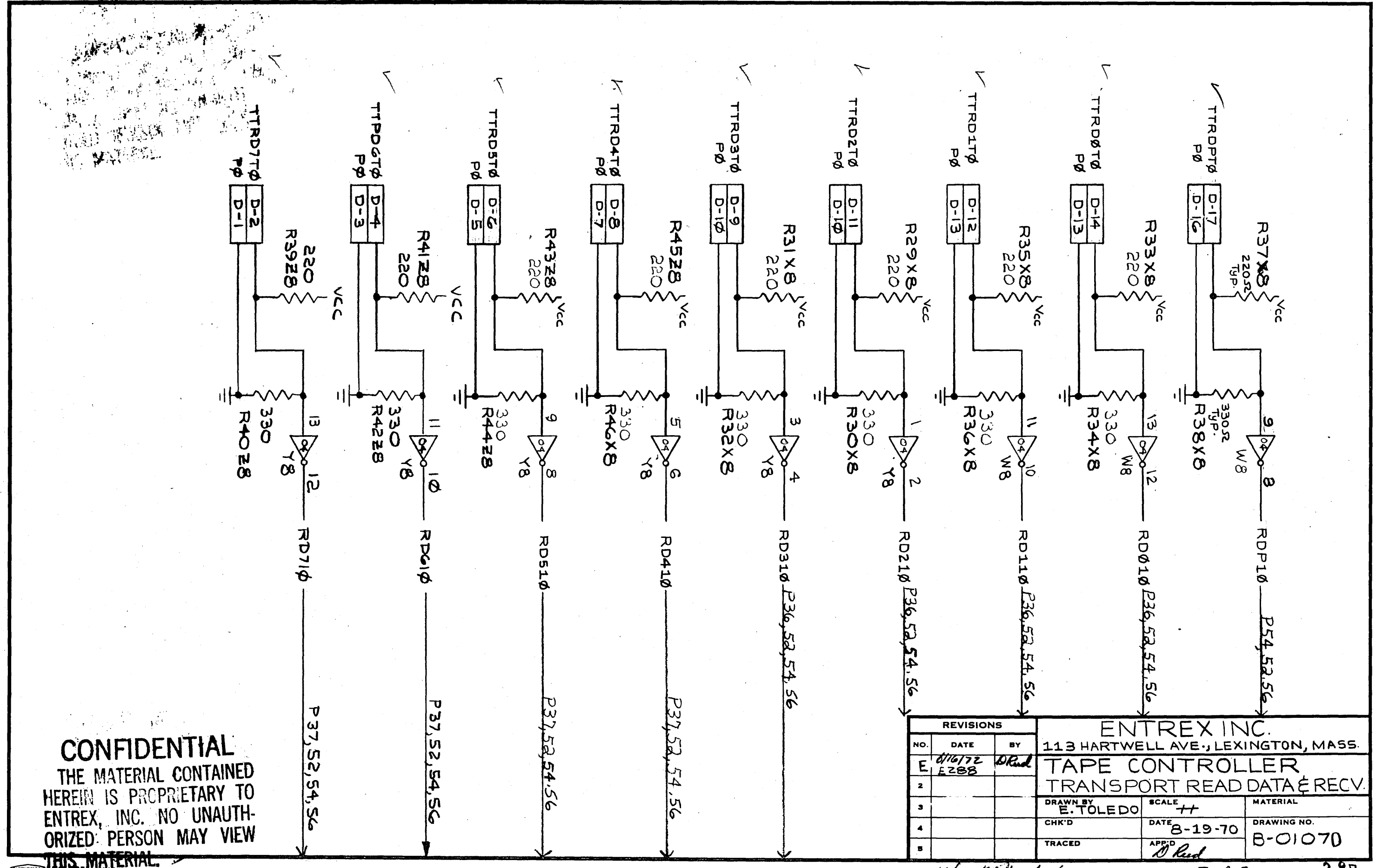

REVISIONS		
NO.	DATE	BY
E	6/16/72 E288	D Reed
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ENTREX INC.
113 HARTWELL AVE., LEXINGTON, MASS.

TAPE CONTROLLER
TRANSPORT READ DATA & RECV.

DRAWN BY E. TOLEDO	SCALE ++	MATERIAL
CHK'D	DATE 8-19-70	DRAWING NO. B-01070
TRACED	APP'D D Reed	

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NATIONAL

M&J 11/11 2/15/84

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P.44 — D3-G — SRT ØØ
P12 SUPØØ — SUP ØØ
P.44 RUN1Ø — C5-11 —
P.48 DRS1Ø

TTDDITØ PØ D-d D-e — R26P8 220 Vcc — 330 R25P8 — 9 Ø4 8 — N8 — DENSITY HIGH DDI 1Ø — P30
TTFPTTØ PØ D-28 D-27 — R18P8 220 Vcc — 330 R17P8 — 13 Ø4 12 — N8 — FILE PROTECT FPT 1Ø — P34,50
TTLDPTØ PØ D-26 D-27 — R20P8 220 Vcc — 330 R19P8 — 11 Ø4 10 — N8 — LOAD POINT LDP 1Ø — P.32, P.14, P50
3 Ø4 4 — P2 — U1 1Ø4 2 — LDP2Ø P14,50 — LDP3Ø P32
TTEOTTØ PØ D-23 D-24 — R24P8 220 Vcc — 330 R23P8 — 3 Ø4 4 — N8 — END OF TAPE EOT 1Ø — P50
TTRWDTØ PØ D-29 D-30 — R16N8 220 Vcc — 330 R15N8 — 5 Ø4 6 — N8 — REWINDING RWD 1Ø — P30,50
TTONLTØ PØ D-31 D-30 — R14N8 220 Vcc — 330 R13N8 — 1 Ø4 2 — N5 — ON LINE ONL 1Ø (NOT USED)
TTRDYTØ PØ D-25 D-24 — R22P8 220 Vcc — 330 R21P8 — 1 Ø4 2 — N8 — READY RDY 1Ø — P34
TTRDSTØ PØ D-15 D-16 — R27U8 220Ω Typ. Vcc — R28 U8 330Ω Typ. — 5 Ø4 6 — R47L7 2 — 11 ØH L7 — R47L7 Vcc — 10 300Ω 500pF C19L7 — 08 M7 — 3 13 — 12 86 C6 — 11
ALLOW READ STROKE
08 A8 — 4 5 — 6 — ARS1Ø
RUN 1Ø VØ8 — 2 — 11 C5 — 12 — RDS1Ø — P24,54,52,48,28 — 50
READ DATA STROBE
STB 1Ø

REVISIONS			
NO.	DATE	BY	
1	6/16/72 E280	DJR	
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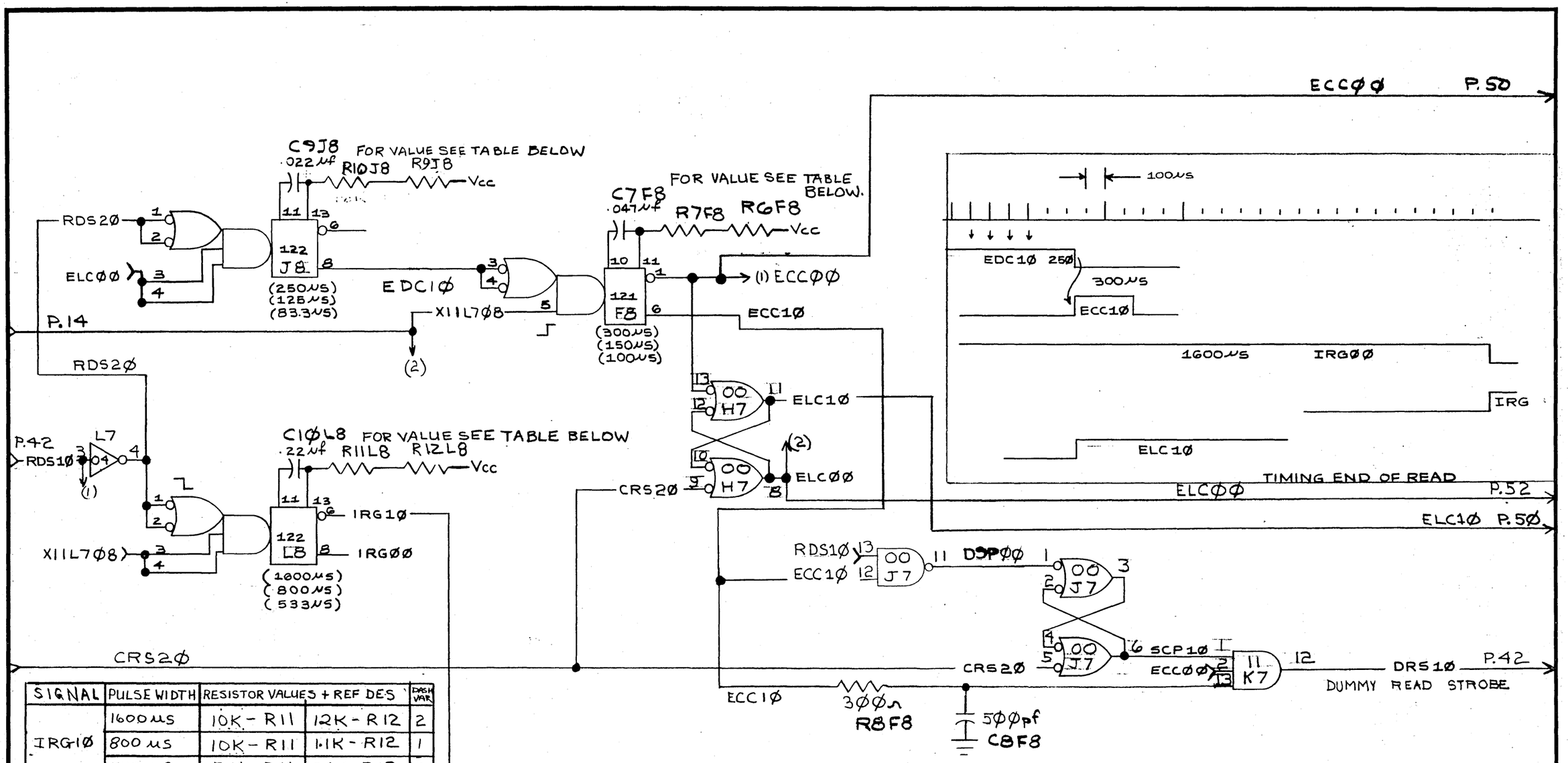
ENTREX INC.
113 HARTWELL AVE., LEXINGTON, MASS.
TAPE CONTROLLER
TRANSPORT STATUS RECV.

DRAWN BY	SCALE	MATERIAL
E. TOLEDO	##	
CHK'D	DATE 8-19-70	DRAWING NO. B-01070
TRACED	APP'D	

2.98

NATIONAL NO. 185 —11X17

MKg 2/11/72



SIGNAL	PULSE WIDTH	RESISTOR VALUES + REF DES		DASH VAR.
IRG1Ø	1600 µS	10K - R11	12K - R12	2
	800 µS	10K - R11	1.1K - R12	1
	533 µS	5.1K - R11	2.4K - R12	3
ECC1Ø	300 µS	8.2K - R7	620 - R6	2
	150 µS	3.9K - R7	510 - R6	1
	100 µS	24K - R7	470 - R6	3
EDC1Ø	250 µS	33K - R10	3K - R9	2
	125 µS	16K - R10	2K - R9	1
	83.3 µS	10K - R10	2K R9	3

REVISIONS			
NO.	DATE	BY	
G	ECO 363 7/6/72	DJR	
H	ECO 446 8/22/72	DJR	
I	ECO 763 11-8-73	DS	
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ENTREX INC.
113 HARTWELL AVE., LEXINGTON, MASS.

TAPE CONTROLLER
GAP DETECTION LOGIC

DRAWN BY	SCALE	MATERIAL
E·TOLEDO	##	
CHK'D	DATE 8-25-70	DRAWING NO. B-01070
TRACED	APP'D D Reed	

Mfg 2/13/74

NATIONAL NO. 185 —11X17

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ENTREX INC.
113 HARTWELL AVE., LEXINGTON, MASS.

TAPE CONTROLLER
ERROR CONTROL LOGIC

DRAWN BY	SCALE	MATERIAL	DRAWING NO.
E. TOLEDO	#		B-01070
CHK'D	DATE 8-21-70		
TRACED	APP'D		

REVISIONS			
NO.	DATE	BY	
1	ECO 556	D&R	
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P. 50 2.102

P.56 CRP1Ø

P.56 CR Ø1Ø 1
P.56 11Ø 2
P.56 2ØØ 3
P.56 31Ø 4
P.56 4ØØ 5
P.56 51Ø 6
P.56 61Ø 11
P.56 71Ø 12

V5 3Ø 8
W5 04 6
5
CCB2Ø

J1 1Ø 12
1
2
13
CCE1Ø

CRC ERROR
9
10
H2 11 8
II
CER1Ø
P.32

P.16 RCI1Ø
P.18 DON1Ø

CER1Ø 9 E2 04 8
II
P.54 LER1Ø 13 MT 04 12
12
I
P.52 PERØØ
P.28 DALØØ 6
ILCØØ 3
ETMØØ 2
5
4
30 E3 8
ERR1Ø
P.30
P.42 LDP2Ø

P.22 RCS1B 1
P.42 RDS1Ø 2
13
10 F5 12
RCCØØ

P.48 ELC1Ø 1
P.48 ECCØØ 2
ØØ H7 3
ACC1Ø

P.46 WDS1Ø 4
P.14 ADT1Ø 5
ØØ N7 6
WCCØØ

2
ØØ N6 3
CCR1Ø 11
P6 04 10
CCRØØ
P.56
CCR1Ø P.56

P6
P.42 EOT1Ø 5 04 6
10
C 11
74 M5
D 12
XØØ
9
ETM1Ø
P.32
8
ETMØØ
13
(1)
RETØØ

LDP2Ø R1
P.42 RWD1Ø 9 04 8
5
4
11 F3 6
P.22 BSPØØ
CORØB 3

P.42 FPT1Ø 13
P.22 WCS1Ø 12
00 D4 11

P.42 LDP1Ø I
P.22 BSP1Ø 2
00 D4 3

1
40 F4 6
5
C4 9 04 8
10
ILLEGAL COMMAND

P.22 IL2ØØ
P.22 RRSØØ
CPSRT 30 11
C
74 D3
D
9
ILC1Ø
P.3Ø
12
8
ILCØØ
P.26
13
(1)

P.18 CUSEB1Ø
CUSEB1Ø
P.18 (1)
CORØB

2.102
NO. 185—11X17

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ENTREX INC.
113 HARTWELL AVE., LEXINGTON, MASS.

TAPE CONTROLLER
PARITY CHECK & GENERATE LOGIC

DRAWN BY	SCALE	MATERIAL
E. TOLEDO	#	
CHK'D	DATE 8-20-70	DRAWING NO. B-01070
TRACED	APP'D	

REVISIONS NO.	DATE	BY
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2.103
P.52

N5 04 13 12
P.40 RDP1Ø
180 P5 EVN ODD
P.40 RDØ1Ø 8
P.40 11Ø 9
P.40 21Ø 10
P.40 31Ø 11
P.40 41Ø 12
P.40 51Ø 13
P.40 61Ø 1
P.40 71Ø 2
READ PARITY ODD
RPO1Ø
RPE1Ø
C6 86
RPO1Ø
PEV1Ø
74 M5
PER1Ø
PER ØØ
P.3Ø
P.50
P.42 RDS1Ø
P.22 BSPØØ
ELCØØ
P.48
40 B5
CRSØØ
P.18 CRSØØ
(4)
P.22 PEV1Ø
P6 04
P.38 WDØ1Ø
P.38 WD11Ø
P.38 WD21Ø
P.38 WD31Ø
P.38 WD41Ø
P.38 WD51Ø
P.38 WD61Ø
P.38 WD71Ø
R7 180
WPG1Ø
WPGØØØ
PC 04
SCR1Ø
P.46 SCR1Ø
P.56 CRPØØ
ØØ NC
WDP1Ø
P.56
38 V8
D-E
D-F
TTWDPTØ
PØ

NO. 188—11317

P.40 RDØ1Ø
P.40 RD11Ø
P.40 RD21Ø
P.40 RD 31Ø
86 Y5
8271 X5
X11Z606
CRS2A
LRØ1Ø
LR11Ø
LR21Ø
LR31Ø
LR3ØØ
W5
3Ø Z5
Z6
ØØ N7
LER1Ø
P. 50,32
LR62Ø
X11Z606 P.56
CLPØØ
CLP1Ø
CRSØØ
X7
CRS1A
CRS2A
(3)
P.56
P.40 RD41Ø
P.40 RD51Ø
P.40 RD 51Ø
P.40 RD 71Ø
86 Y7
8271 Z7
LR41Ø
LR51Ø
LR61Ø
LR62Ø
LR71Ø
LR7ØØ
P.42 RDS1Ø
BSPØØ
P.22 RDP1Ø
P.40 CRSØØ
P.18
X7-13
74 Y6
CLPØØ
LRP1Ø
LRPØØ

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ENTREX INC.
113 HARTWELL AVE., LEXINGTON, MASS.

TAPE CONTROLLER
LRC REGISTER

DRAWN BY E-TOLEDO	SCALE H	MATERIAL
CHK'D	DATE 8-21-70	DRAWING NO. B-01070
TRACED	APP'D	

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ENTREX INC.
113 HARTWELL AVE., LEXINGTON, MASS.

TAPE CONTROLLER
CRC REGISTER

DRAWN BY	SCALE	MATERIAL
E. TOLEDO	##	
CHK'D	DATE	DRAWING NO.
	8-21-70	B-01070
TRACED	APP'D	

REVISIONS			
NO.	DATE	BY	
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2.105

P.50

WCSØØ P.22

X7

RD61Ø P.40
WD61Ø
RD71Ø P.40
WD71Ø
RDP1Ø P.40
WDP1Ø P.52
RDØ1Ø P.40
WDØ1Ø
RD11Ø P.40
WD11Ø
RD21Ø P.40
WD21Ø
RD31Ø P.40
WD31Ø
RD41Ø P.40
WD41Ø
RD51Ø P.40
WD51Ø

51 V7, 51 U7, 51 T7, 51 W7

CR6ØØ, CR7ØØ, CRPØØ, CRØØØ, CR1ØØ, CR2ØØ, CR3ØØ, CR4ØØ, CR5ØØ

86 V6, 86 T6, 86 T5, 86 X6

CCR1Ø
X117606
CCRØØ

8271 U6, 8271 W6, 74 DY6

CRS2A

U5

CR71Ø P.50
CR7ØØ P.38
CRP1Ø P.50
CRPØØ
CR01Ø P.38
CRØØØ
CR11Ø P.50
CR1ØØ P.38
(1)

CR21Ø P.50,38
CR2ØØ
CR31Ø P.50
CR3ØØ P.38
CR41Ø P.38
CR4ØØ P.50
CR61Ø P.50
CR6ØØ P.38

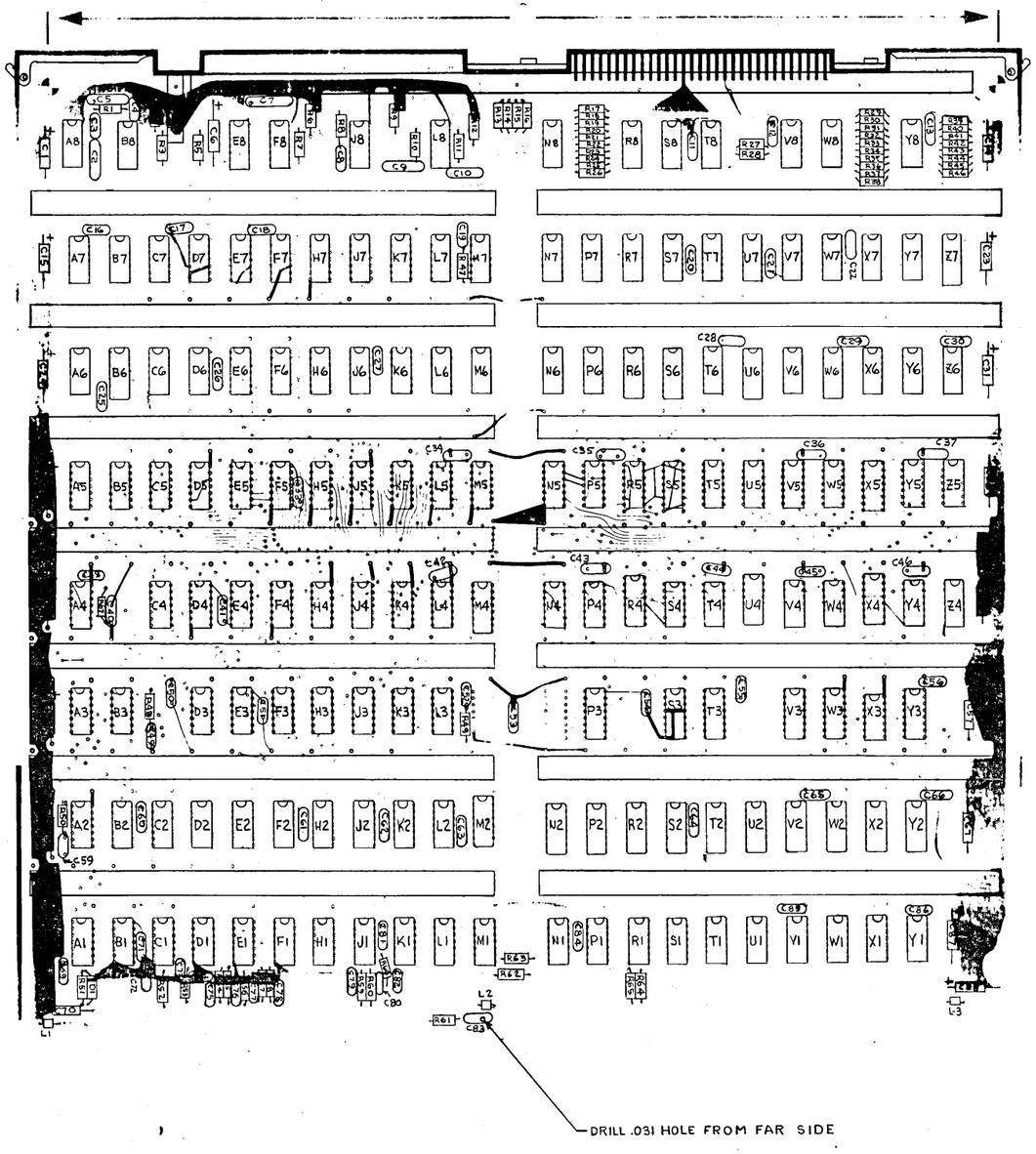
X11Z6ØG

CR51Ø P.50
CR5ØØ P.38

P.5Ø CCRØØ
P.50 CCR1Ø → (2)
P.54 CRS2A → (3)
X11Z6ØG → P.54

P.56

NO. 185—11X17



NOTES:
1. PARTS LIST BP 62-45-01070-XXX
2. SCHEMATIC B 01070
3. PC BOARD ETCH REV J

DASH VARIATION	
25 IPS	001
12.5 IPS	002
37.5 IPS	003

REV	DESCRIPTION	APPD	DATE
L	ECO # 825 REDRAWN		5/24/73

NEXT ASSY	USED ON

UNLESS OTHERWISE SPECIFIED
FRACT DECIMAL DEGREE
± ± ±
MAX RADIUS
RES ARE IN OHMS
± % WATT
DIODES ARE
CAPS ARE uf v
TSTR ARE
INT CKTS ARE SERIES

MATERIAL

FINISH PER SPEC A00527 UNLESS OTHERWISE SPECIFIED

	DRAWN	BY	DATE
	CHECK		
	APPRV		
	ENG		
	PROMGR		

ENTREX INC.
168 MIDDLESEX TURNPIKE
BURLINGTON MASS 01803

ASSEMBLY DWG.
9 CHANNEL TAPE CONTROLLER

SCALE	SIZE	CAT	SUB CAT	DRAWING NUMBER	DASH #	REV
FULL	PA	62	45	01070	XXX	L

DO NOT SCALE PRINT — SHEET 1 OF 2

2.106

2.106