

I. C. TABLE	
U1	NE592
U2	7406
U3	MPQ2907
U4	CA3146
U5	7406
U6	7400
U7	7404
U8	7400
U9	LM393
U10	75463
U11	NE592
U12	LM311
U13	7486
U14	7474
U15	74221
U16	74123
U17	7414
U18	7438
U19	SHUNT
* 8 PIN DIP	

PIN LIST		
CONN. NAME	# OF PINS	USE
J6	10	HEAD
J7	4	POWER
J8	34	I/O
J9	4	TK 00
J10	6	MOTDR CNTL. INT. FACE
J11	2	WPRT
J12	4	INDEX

SPARE GATES	
I. C.	QTY.
U2	1
U4	1
U5	1
U13	1

LAST USED	
U19	C37
R39	RP11
TP13	L3
CR20	W9

APPLICABLE P.C.B REV. LEVEL	
APPLICABLE ASSY. REV. LEVEL	

REVISIONS					
REV	DESCRIPTION	DATE	DR	CHK	APPR
A	PRELIMINARY RELEASE	7/28	JP		
B	PRE-PROD. RELEASE PER E.O. 12711	7/27/82	J		
C	PRE-PROD. RELEASE PER E.O. 12810	7/24/82	J		
D	REV PER EO 12950	7/20/83	J		
E	REV PER EO 12970	7/24/83	J		
F	REV PER EO 13048	7/24/83	J		
G	REV PER EO 13238	7/25/83	J		
H	REV PER EO 13254	3/8/83	J		
J	REV PER EO 13301	3/10/83	J		
K	REV PER EO 40356	7/4/83	J		
L	INCCORP. EO. 40381	9/2/83	J		
M	INCCORP. EO. 40389	3/28/84	J		

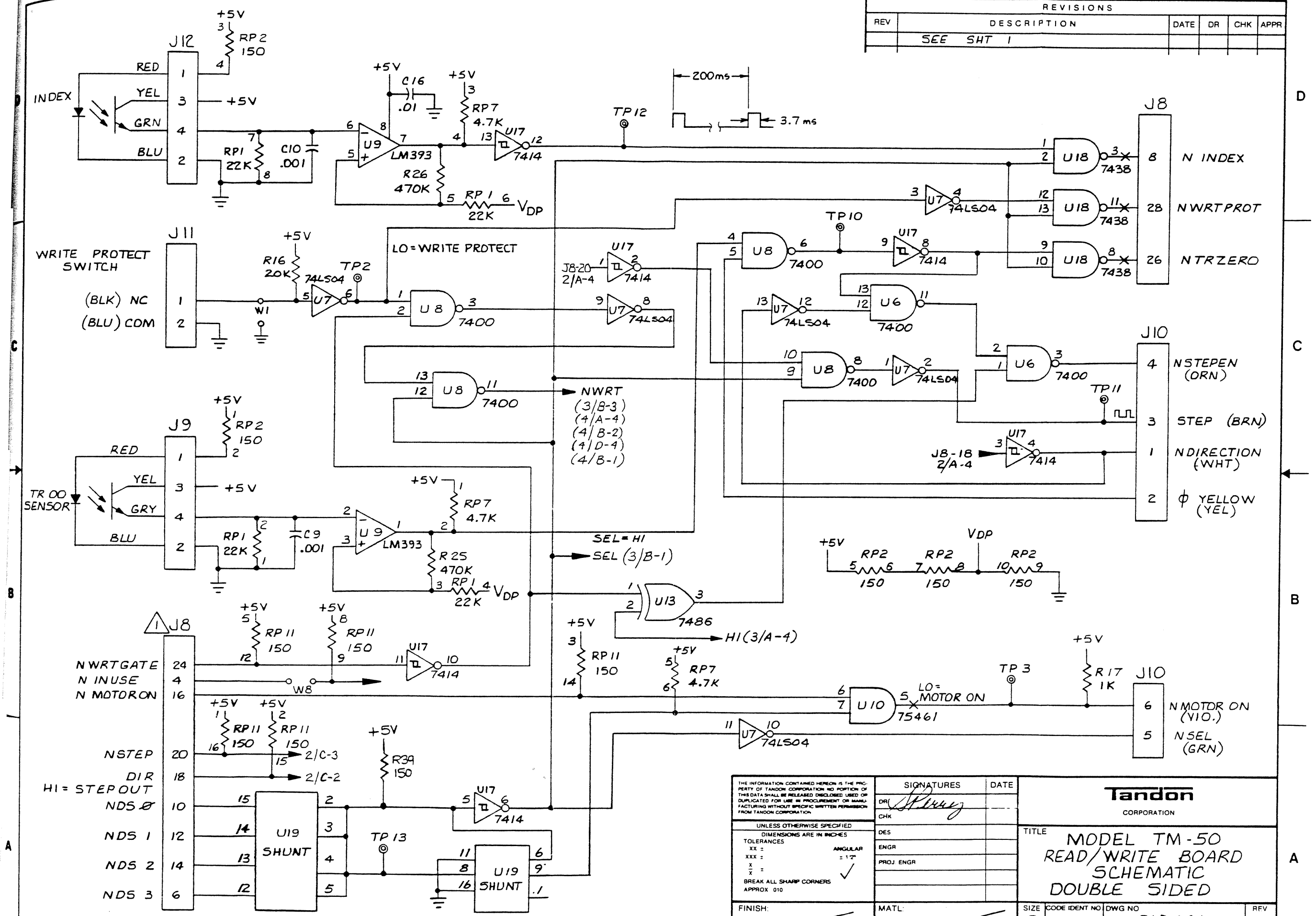
- 6. COLDERS REFER TO HARNESS WIRING.
- 5. ALL DIODES ARE 1N4446.
- 4. CAPACITORS ARE IN MF, ±10%.
- 3. ALL 1% RESISTORS ARE 1/8 W.
- 2. ALL RESISTORS ARE IN OHMS, 1/4 W, 5%.

⚠ ALL ODD NUMBERED PINS ARE CONNECTED TO GROUND.

NOTES: UNLESS OTHERWISE SPECIFIED

<small>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES</small> TOLERANCES XX =                      ANGULAR XXX =                     ± 1/2" X =                         ✓ I = I = <small>BREAK ALL SHARP CORNERS APPROX 010</small>	<small>SIGNATURES</small> DES: <i>[Signature]</i> ENGR: <i>[Signature]</i> PROJ ENGR: <i>[Signature]</i>	<small>DATE</small> 7/28 7/28 7/27/82	<b>Tandon</b> <small>CORPORATION</small>  <b>TITLE</b> MODEL TM-50 READ / WRITE BOARD SCHEMATIC DOUBLE SIDED		
	<small>FINISH</small> /	<small>MATL.</small> /		<small>SIZE</small> <b>C</b>	<small>CODE IDENT NO</small> 210441
<small>SCALE</small> /		<small>DO NOT SCALE DWG</small>		<small>SHEET</small> 1 OF 4	

REVISIONS					
REV	DESCRIPTION	DATE	DR	CHK	APPR
	SEE SHT 1				



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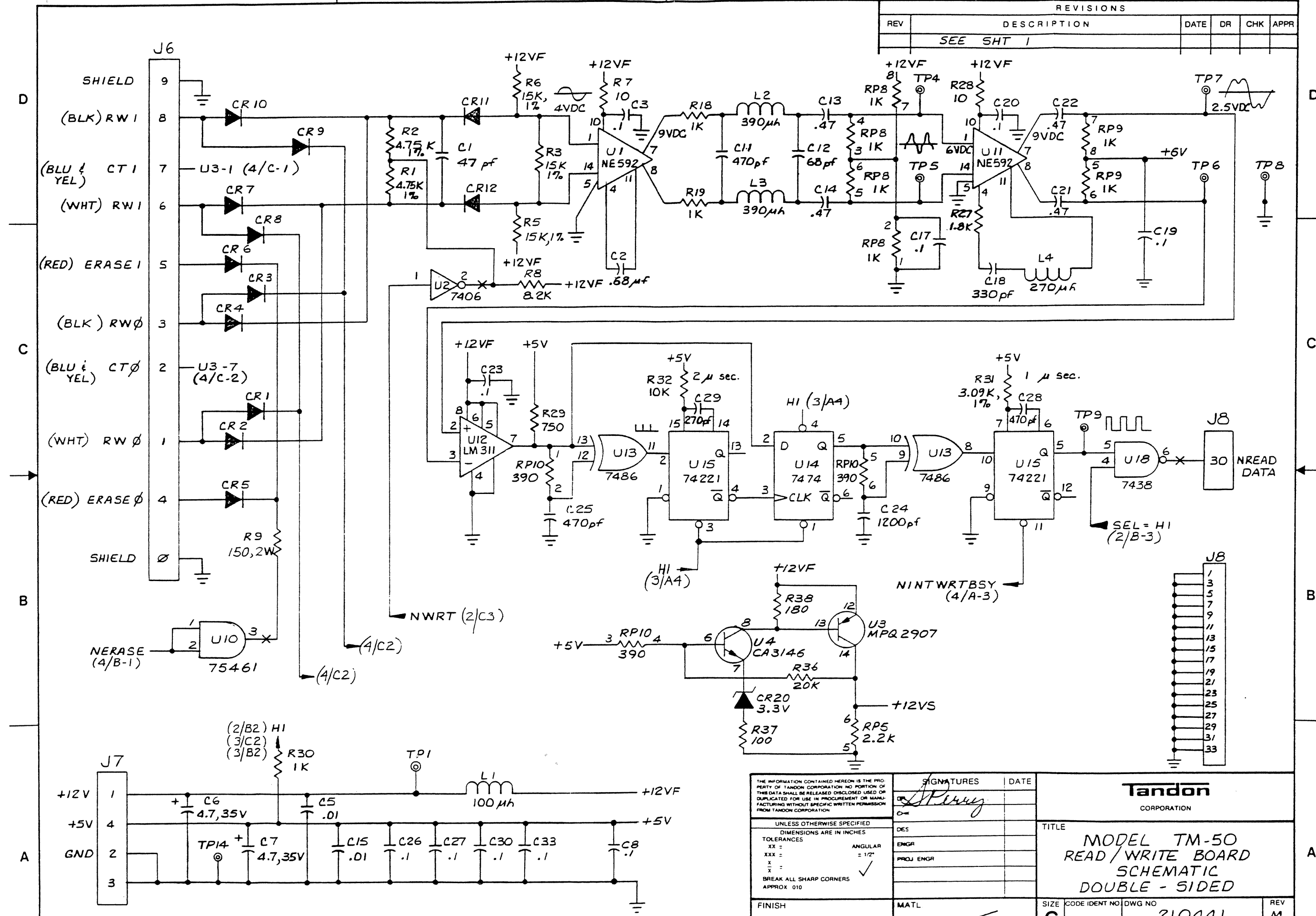
SIGNATURES		DATE
DR:	<i>[Signature]</i>	
CHK:		
DES:		
ENGR:		
PROJ ENGR:		

**Tandon**  
CORPORATION

TITLE  
**MODEL TM-50  
READ/WRITE BOARD  
SCHEMATIC  
DOUBLE SIDED**

FINISH:	MATL:	SIZE: <b>C</b>	CODE IDENT NO:	DWG NO: <b>210441</b>	REV: <b>M</b>
		SCALE:	DO NOT SCALE DWG	SHEET <b>2</b> OF <b>4</b>	

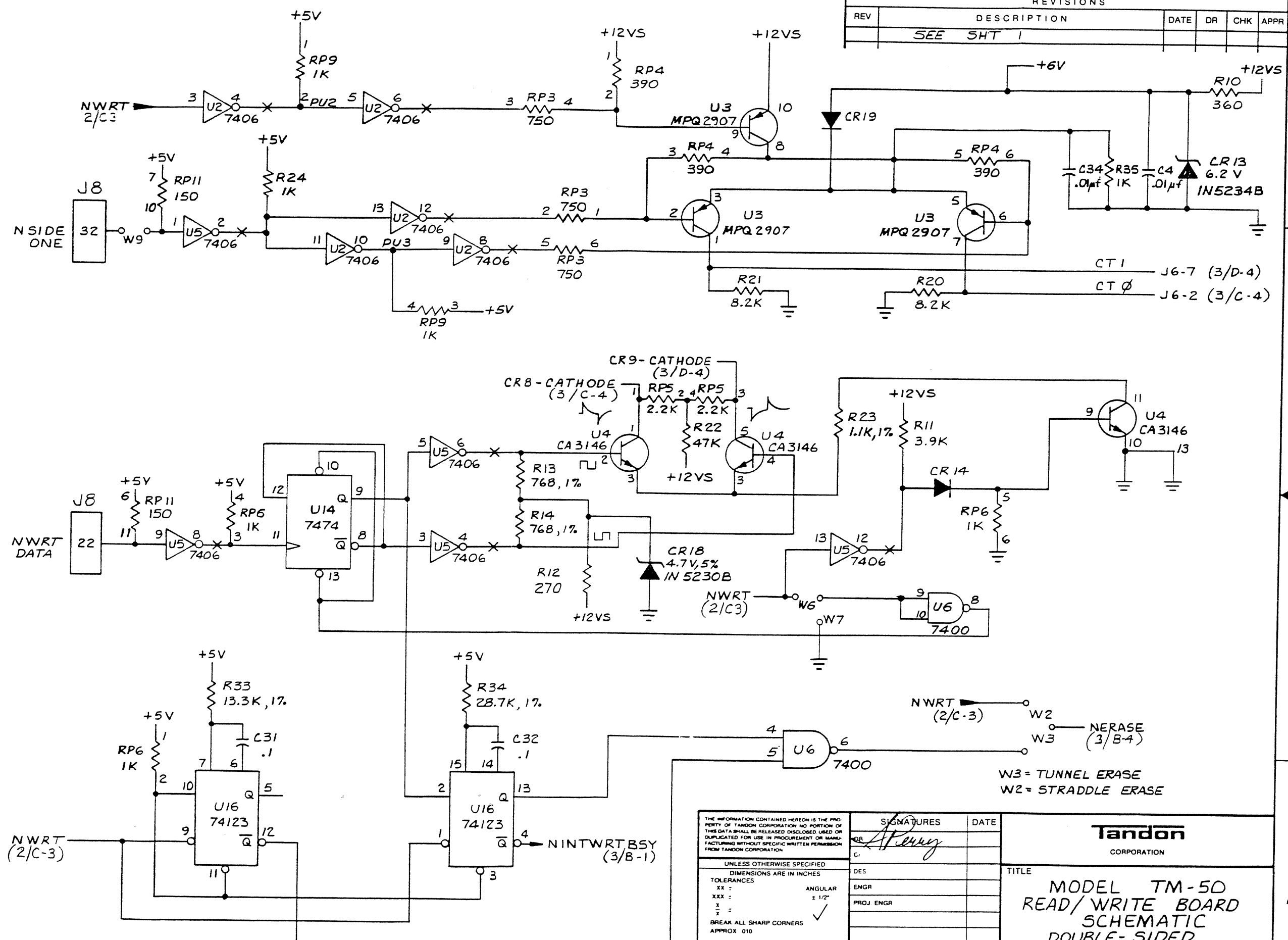
REVISIONS				
REV	DESCRIPTION	DATE	DR	CHK
SEE SHT 1				



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	DES		
	ENGR		
	PROJ ENGR		
<small>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES</small> TOLERANCES XX = XXX = X/2 = BREAK ALL SHARP CORNERS APPROX .010	MATL	SIZE C CODE IDENT NO DWG NO 210441 REV M	TITLE <b>MODEL TM-50 READ/WRITE BOARD SCHEMATIC DOUBLE-SIDED</b>
FINISH		SCALE	DO NOT SCALE DWG

REVISIONS				
REV	DESCRIPTION	DATE	DR	CHK
	SEE SHT 1			



NOTES: UNLESS OTHERWISE SPECIFIED

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<small>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES</small>		DES		TITLE
TOLERANCES XX - ANGULAR XXX - ± 1/2" X - I - BREAK ALL SHARP CORNERS APPROX .010		ENGR		MODEL TM-50 READ/WRITE BOARD SCHEMATIC DOUBLE-SIDED
FINISH		MATL.		SIZE CODE IDENT NO DWG NO C 210441
				REV M
				DO NOT SCALE DWG SHEET 4 OF 4

I. C. TABLE	
U1	NE592
U2	7406
U3	MPQ2907
U4	CA3146
U5	7406
U6	7400
U7	7404
U8	7400
U9	LM393
U10	75463
U11	NE592
U12	LM311
U13	7486
U14	7474
U15	74221
U16	74123
U17	7414
U18	7438
U19	SHUNT
* 8 PIN DIP	

PIN LIST		
CONN. NAME	# OF PINS	USE
J6	10	HEAD
J7	4	POWER
J8	34	I/O
J9	4	TK 00
J10	6	MOTOR CNTL INT. FACE
J11	2	WPRT
J12	4	INDEX


SPARE GATES	
I. C.	QTY.
U2	1
U4	1
U5	1
U13	1

LAST USED	
UIC	QTY.
U19	C37
R39	RP11
TP13	L3
CR20	W9


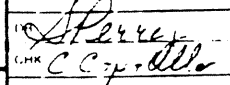
APPLICABLE P.C.B REV. LEVEL	
APPLICABLE ASSY. REV. LEVEL	

REVISIONS					
REV	DESCRIPTION	DATE	DR	CHK	APPR
A	PRELIMINARY RELEASE	7/29/82	JP		
B	PRE-PROD. RELEASE PER E.O. 12711	1/2/83	JT		
C	PRE-PROD. RELEASE PER E.O. 12810	4/4/83	JT		
D	REV PER EO 12950	12/03	JT		
E	REV PER EO 12970	12/03	JT		
F	REV PER EO 13048	12/03	JT		
G	REV PER EO 13238	7/25/83	JT		
H	REV PER EO 13254	3/10/83	HG		
J	REV PER EO 13301	7/10/83	HG		
K	REV PER EO 40356	7/09/83	PB		
L	INCCORP. EO. 40381	9/28/83	JTM		
M	INCCORP. EO. 40389	3/28/84	JTM		
N	PRODUCTION RELEASE	12/10/83	JY		

- 6. COLORS REFER TO HARNESS WIRING.
- 5. ALL DIODES ARE 1N4446.
- 4. CAPACITORS ARE IN MF, ±10%.
- 3. ALL 1% RESISTORS ARE 1/8 W.
- 2. ALL RESISTORS ARE IN OHMS, 1/4 W, 5%.

 ALL ODD NUMBERED PINS ARE CONNECTED TO GROUND.

NOTES: UNLESS OTHERWISE SPECIFIED

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	 <small>CHK</small>	7/28/82 7/2/82	
<small>UNLESS OTHERWISE SPECIFIED</small> <small>DIMENSIONS ARE IN INCHES</small> <small>TOLERANCES</small> XX ± XXX ± X ± X ± BREAK ALL SHARP CORNERS APPROX .010	<small>DES</small> <small>ENGR</small> <small>PROJ ENGR</small>	<small>DATE</small> <small>10/27/82</small>	MODEL TM-50 READ / WRITE BOARD SCHEMATIC DOUBLE SIDED
<small>FINISH:</small>	<small>MATL:</small>	<small>SIZE</small> C	<small>CODE IDENT NO</small> 210441 <small>DWG NO</small> 210441 <small>RFV</small> N <small>DO NOT SCALE DWG</small> SHEET 1 OF 4

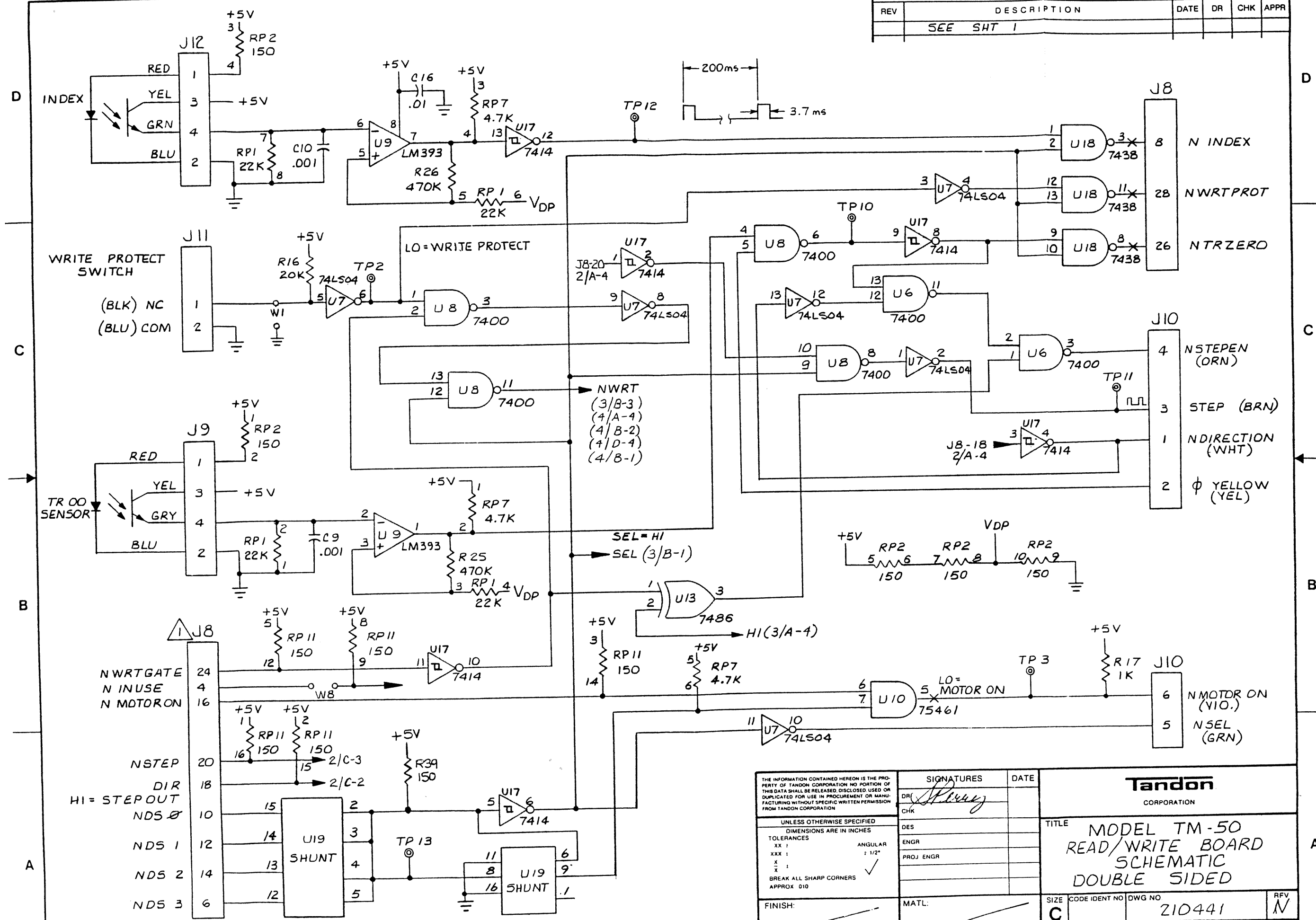
4

3

2

1

REVISIONS					
REV	DESCRIPTION	DATE	DR	CHK	APPR
	SEE SHT 1				



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	DR: <i>[Signature]</i>		
	CHK:		
	DES:		
	ENGR:		SIZE: <b>C</b> CODE IDENT NO:    DWG NO: <b>210441</b> REV: <b>N</b> SCALE:    DO NOT SCALE DWG    SHEET <b>2</b> OF <b>4</b>
	PROJ ENGR:		
FINISH:	MATL:		

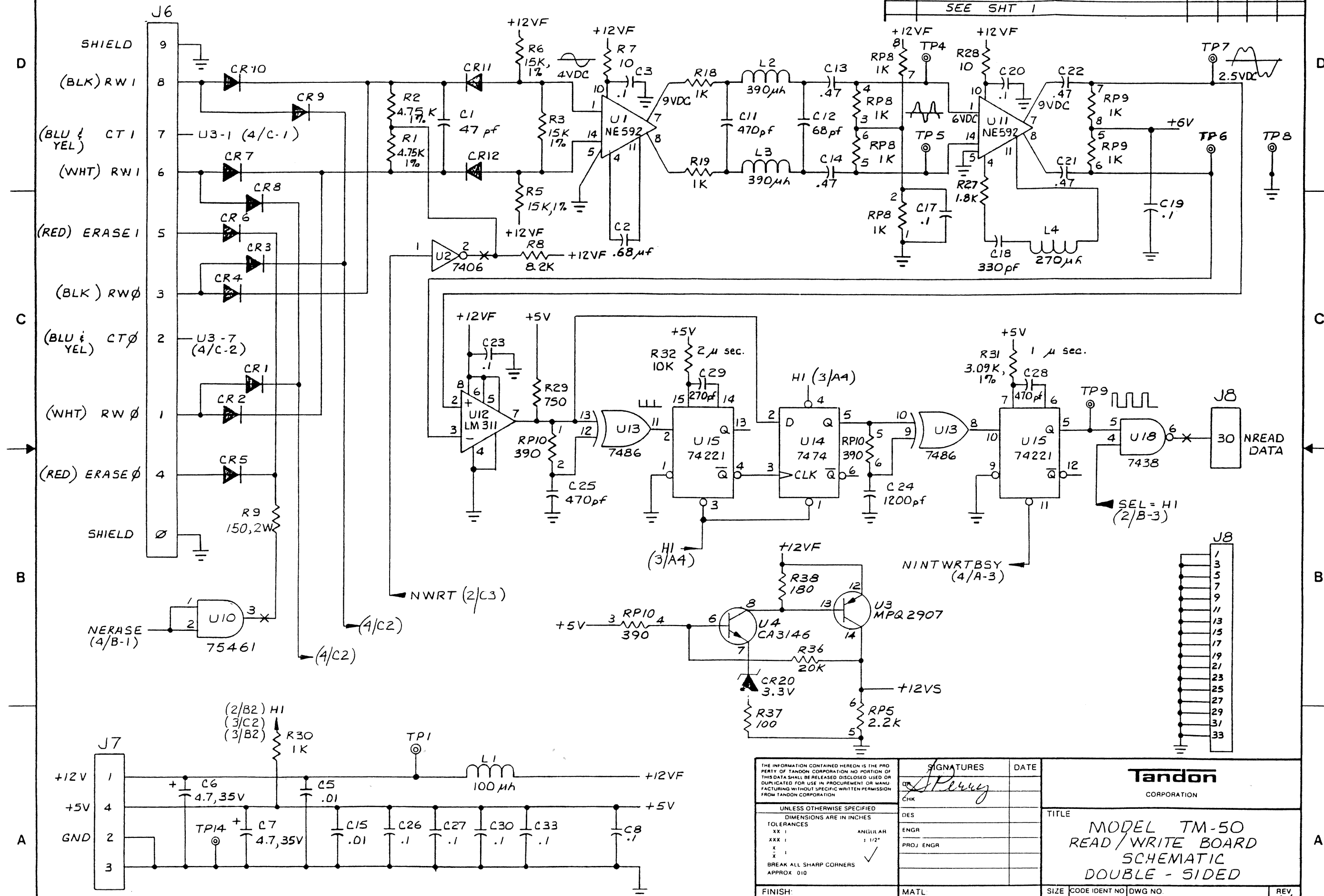
4

3

2

1

REVISIONS				
REV	DESCRIPTION	DATE	DR	CHK
	SEE SHT 1			



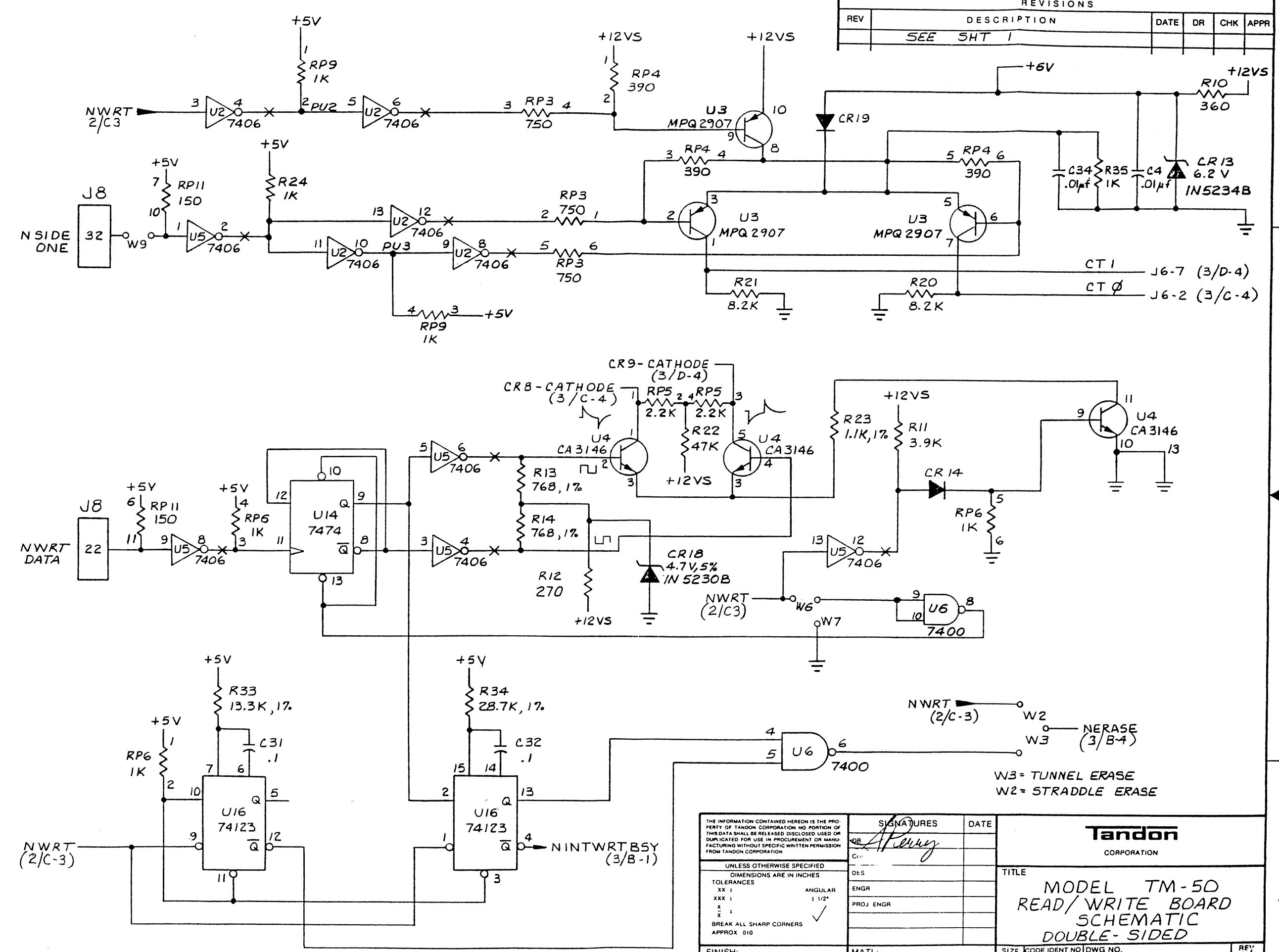
NOTES. UNLESS OTHERWISE SPECIFIED

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SIGNATURES	DATE
<i>J. Perry</i>	
CHK	
DES	
ENGR	
PROJ ENGR	

<b>Tandon</b> CORPORATION	
TITLE <b>MODEL TM-50 READ/WRITE BOARD SCHEMATIC DOUBLE-SIDED</b>	
SIZE	CODE IDENT NO
<b>C</b>	
SCALE	DO NOT SCALE DWG
DWG NO.	REV
<b>210441</b>	<b>N</b>
SHEET <b>3</b> OF <b>4</b>	

REVISIONS					
REV	DESCRIPTION	DATE	DR	CHK	APPR
	SEE SHT 1				



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	<small>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES</small> TOLERANCES XX ± XXX ± X ± X BREAK ALL SHARP CORNERS APPROX .010	DES ENGR PROJ ENGR	
FINISH:	MATL:	SIZE <b>C</b> CODE IDENT NO DWG NO. <b>210441</b> REV <b>N</b>	DO NOT SCALE DWG SHEET 4 OF 4



⑥ TABLE I

VERSION	VERSION CHARACTERISTIC	CR3 975001-001	R24 150Ω 1/4W, 5% 973000-151	C21	R18	C16
-001	STANDARD	OMIT	OMIT	1UF	14.3K 1%	OMIT
-002	W/WRT PROTECT LED	USE	USE	1UF	14.3K 1%	OMIT
-003	FAST SEEK STEPPER MOTOR	USE	USE	.47UF	11.0K 1%	OMIT
-004	W/WRT PROTECT LED/ACCESS MATRIX	USE	USE	1UF	14.3K 1%	.47UF

REVISIONS						
REV	DESCRIPTION	DATE	DR	CHK	APPR	
E	REVISED PER EO 13094	1/24/83	HG	APL	mm	
F	REVISED PER EO 13195 B	2/17/83	E.A.C.			
G	REVISED PER EO 13206	3/14/83	HG			
H	REVISED PER EO 13386	7/12/83	JK	OP		
J	PRODUCTION RELEASE EO 40480	1/12/84				

I.C. TABLE	
U1	UDN5712M
U2	UDN5712M
U3	LM2917
U4	7406
U5	7404
U6	7474
U7	74191
U8	74221
U9	75464
U10	LM555

SPARE GATES	
I.C.	QTY
U6	1

LAST USED		
U10	CR3	R24
Q2	C24	TP3

PIN LIST		
CONN NAME	# OF PINS	USE
J1	4	SPINDLE MOTOR
J2	4	POWER
J3	6	STEPPER
J4	6	CONTROL
J5	2	DISKETTE LOADED

⑥ FOR PART NUMBER, VALUE & USAGE OF COMPONENTS AFFECTED BY VERSION NUMBER, SEE TABLE I

- 5. C12 USED FOR TEMP COMP.
- 4. ALL DIODES ARE IN 4446
- 3. CAPACITORS ARE IN μF, ±20%
- 2. 1% RESISTORS 1/8 W
- 1. ALL RESISTORS ARE IN OHMS, 1/4 W, 5%

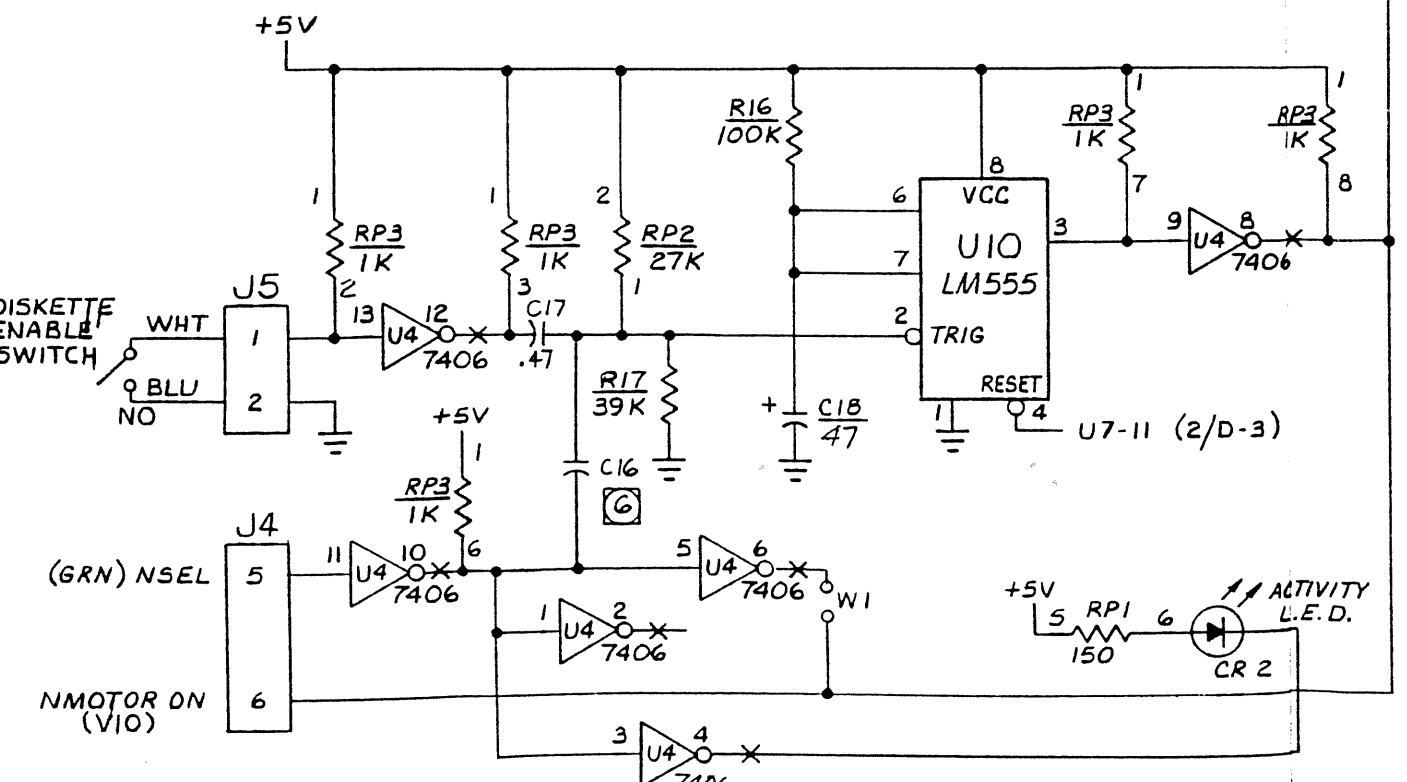
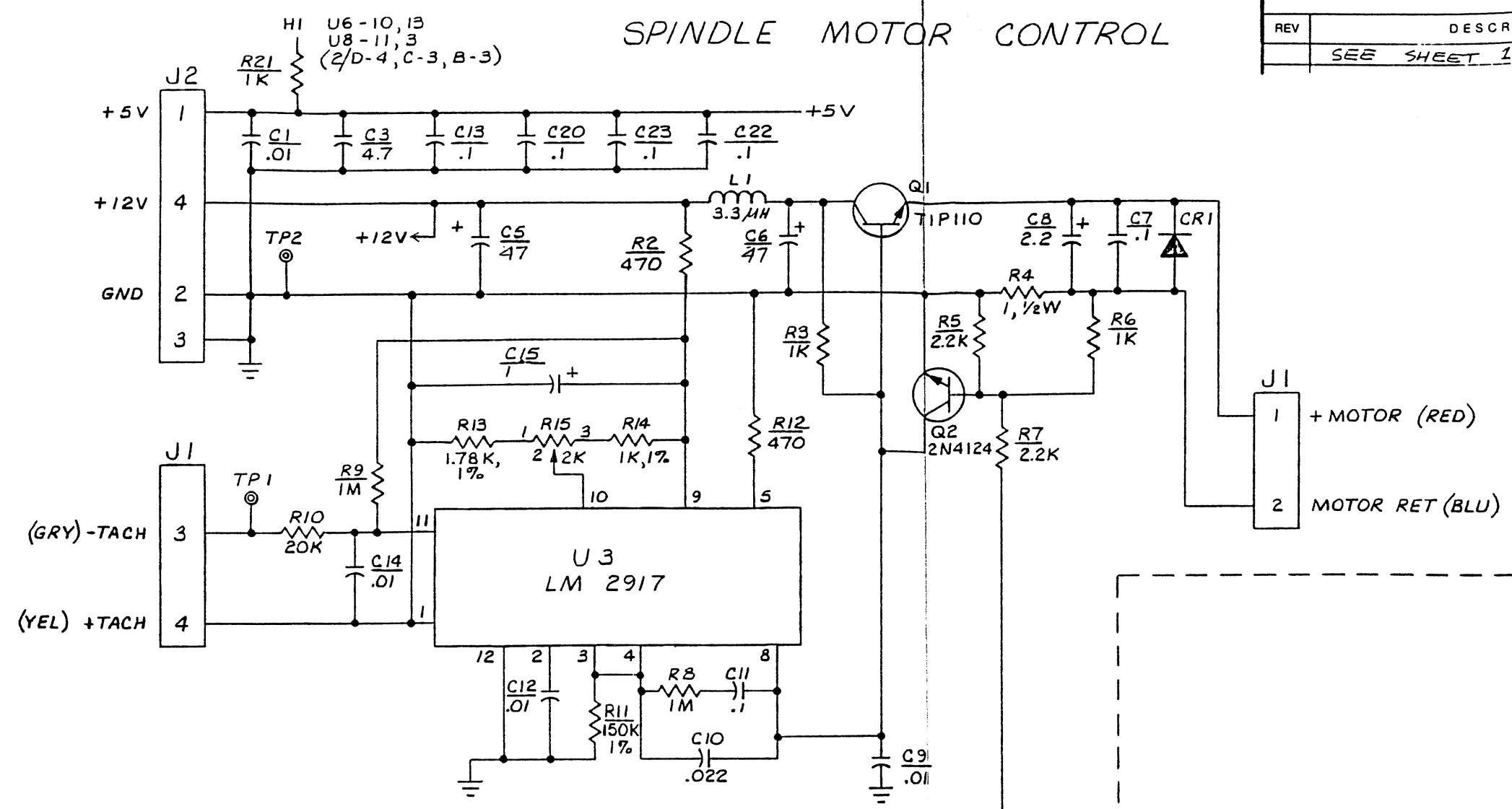
NOTES: UNLESS OTHERWISE SPECIFIED

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	DR	H. Groat	1/25/83	
	CH	B. R.	1/25/83	
	DES	M. H.	2/11/83	
<small>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES</small>				TITLE <b>MODEL TM-50 MOTOR CONTROL SCHEMATIC</b>
<small>TOLERANCES</small> XX .1 ANGULAR 1/2° XXX .1 X .1 X .1 BREAK ALL SHARP CORNERS APPROX .010				
FINISH:	MATL:		SIZE <b>C</b> CODE IDENT NO DWG NO <b>210439</b> REV <b>J</b>	
SCALE <b>NONE</b>		DO NOT SCALE DWG	SHEET 1 OF 3	

T1150 PCB A

# SPINDLE MOTOR CONTROL

REVISIONS				
REV	DESCRIPTION	DATE	DR	CHK
	SEE SHEET 1			

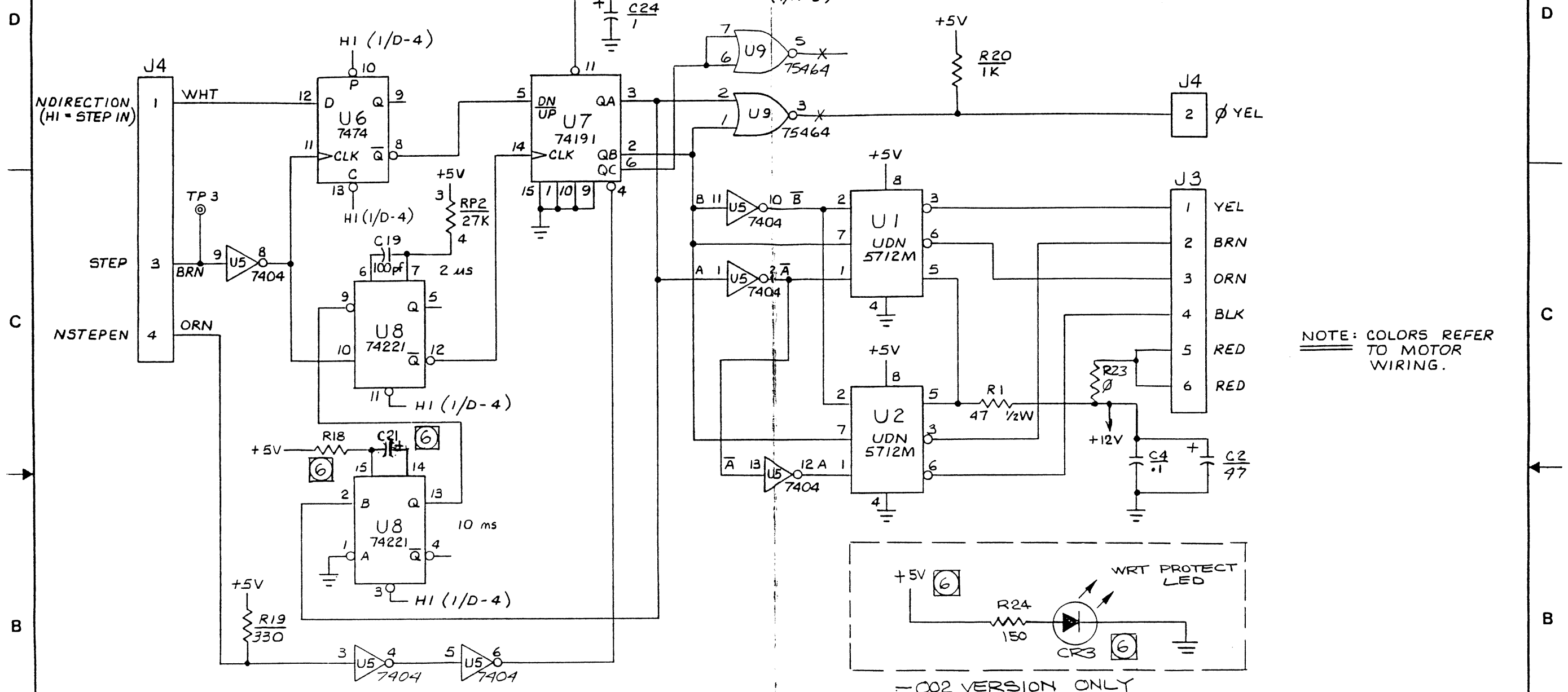


# SPIN TIMER

<small>THE INFORMATION CONTAINED HEREON IS THE PROPERTY OF TANDON CORPORATION AND PORTION OF THIS DATA SHALL BE RELEASED, DISCLOSED OR DUPLICATED FOR USE IN PROCUREMENT OR MANUFACTURING WITHOUT SPECIFIC WRITTEN PERMISSION FROM TANDON CORPORATION</small>	SIGNATURES DE: <i>[Signature]</i> ENGR: <i>[Signature]</i> PROJ ENGR: <i>[Signature]</i>	DATE 3/5/82 6/19/82 12/20/82	<b>Tandon</b> CORPORATION  TITLE MODEL TM-50 MOTOR CONTROL SCHEMATIC
	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES XX ±                      ANGULAR XXX 1                      1/2° X .1 X .5 BREAK ALL SHARP CORNERS APPROX. 010	FINISH: _____ MATL: _____	
SCALE NONE                      DO NOT SCALE DWG                      SHEET 2 OF 3			

# STEPPER MOTOR CONTROL

REVISIONS					
REV	DESCRIPTION	DATE	DR	CHK	APPR
	SEE SHEET 1				



	TWO PHASES			
	(CW) STEP OUT		(CCW) STEP IN	
Ø 1 ON	YEL	BLK	YEL	BRN
Ø 2 ON	ORN	BLK	ORN	BRN
Ø 3 ON	ORN	BRN	ORN	BLK
Ø 4 ON	YEL	BRN	YEL	BLK

	SINGLE PHASE	
	(CW) STEP OUT	(CCW) STEP IN
	YEL	YEL
	BLK	BRN
	ORN	ORN
	BRN	BLK

NOTES UNLESS OTHERWISE SPECIFIED

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	OR			<b>MODEL TM-50 MOTOR CONTROL SCHEMATIC</b>					
	CHK								
	DES								
ENGR									
PROJ ENGR									
FINISH:	MATL:	SIZE	<table border="1"> <tr> <td>CODE IDENT NO</td> <td>DWG NO</td> <td>REV</td> </tr> <tr> <td></td> <td>210439</td> <td>J</td> </tr> </table>	CODE IDENT NO	DWG NO	REV		210439	J
CODE IDENT NO	DWG NO	REV							
	210439	J							
		SCALE	<table border="1"> <tr> <td>NONE</td> <td>DO NOT SCALE DWG</td> <td>SHEET 3 OF 3</td> </tr> </table>	NONE	DO NOT SCALE DWG	SHEET 3 OF 3			
NONE	DO NOT SCALE DWG	SHEET 3 OF 3							