⑥ TABLE I

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

I.C. TABLE

U 1	UDN5712M
U 2	UDN5712M
U 3	LM 2917
U 4	7406
U 5	7404
U 6	7474
U 7	74191
U 8	74221
U 9	75464
U 10	LM 555

SPARE GATES

I.C.	QTY
U6	1

LAST USED

U10	CR3	R24
Q2	C24	TP3

PIN LIST

CONN NAME	# OF PINS	USE
J 1	4	SPINDLE MOTOR
J 2	4	POWER
J 3	6	STEPPER
J 4	6	CONTROL
J 5	2	DISKETTE LOADED

MODEL 4P (26-1080)

Tandon
CORPORATION

TITLE
MODEL TM-50
MOTOR CONTROL
SCHEMATIC

SIGNATURES | DATE
DR H. Grace
CHK James B Pewig
ENGR

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES
XX ±   ANGULAR
XXX ±   ± 1/2°
X
—
x
BREAK ALL SHARP CORNERS
APPROX .010

FINISH | MATL

SIZE	CODE IDENT NO	DWG NO	REV
C		210439	H

SCALE NONE | DO NOT SCALE DWG | SHEET 1 OF 3

⑥ FOR PART NUMBER, VALUE & USAGE OF COMPONENTS
AFFECTED BY VERSION NUMBER, SEE TABLE I
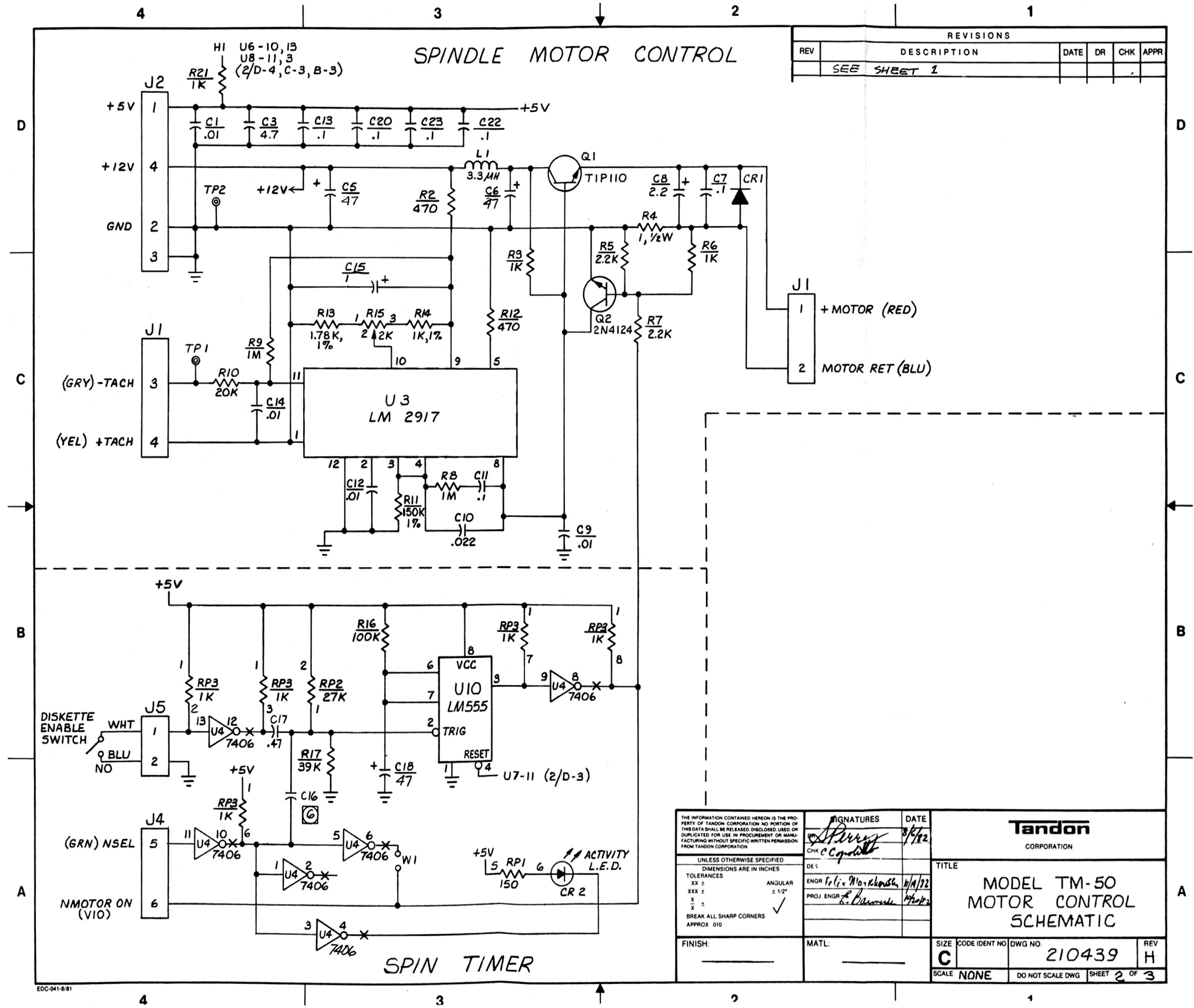
5. C12 USED FOR TEMP COMP.

4. ALL DIODES ARE IN4446

3. CAPACITORS ARE IN μF, ±20%

2. 1% RESISTORS 1/8 W

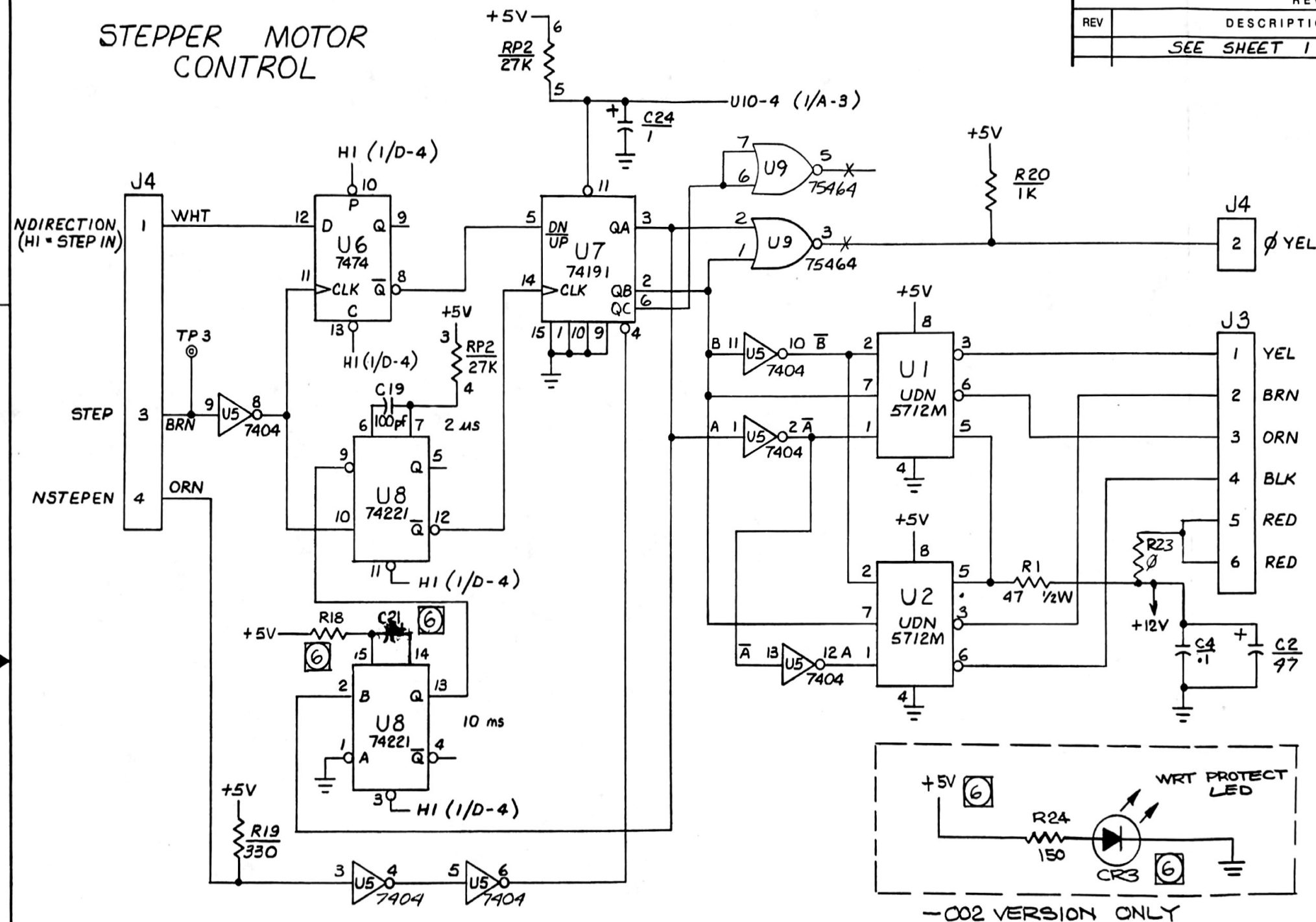1. ALL RESISTORS ARE IN OHMS, 1/4 W, 5%

NOTES UNLESS OTHERWISE SPECIFIED

SPINDLE MOTOR CONTROL

SPIN TIMER

REV	DESCRIPTION	DATE	DR	CHK	APPR
	SEE SHEET 1				

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TITLE
MODEL TM-50
MOTOR CONTROL
SCHEMATIC

SIZE C	CODE IDENT NO	DWG NO. 210439	REV H

SCALE NONE | DO NOT SCALE DWG | SHEET 2 OF 3

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UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES
BREAK ALL SHARP CORNERS
APPROX .010

EDC-041-8/81

STEPPER MOTOR CONTROL

+5V
RP2 27K
C24 1
U10-4 (1/A-3)

J4
NDIRECTION (HI = STEP IN) 1 WHT 12 D U6 7474 Q 9
HI (1/D-4) 10 P
11 CLK Q̄ 8
13 C
HI (1/D-4)

TP3
STEP 3 BRN 9 U5 7404 8
RP2 27K
C19 100pf 2 µs

U8 74221
9 Q 5
10 Q̄ 12
11 HI (1/D-4)

NSTEPEN 4 ORN

+5V
R18 C21
U8 74221
15 14
2 B 13
1 A Q̄ 4
10 ms
3 HI (1/D-4)

+5V
R19 330

3 4 U5 7404   5 6 U5 7404

5 DN/UP U7 74191 QA 3
11
14 CLK QB 2
QC 6
15 1 10 9 4

7 U9 75464 5
6
2 U9 75464 3
1

+5V
R20 1K

J4
2 Ø YEL

B 11 U5 7404 10 B̄ 2 U1 UDN 5712M 3
7 6
A 1 U5 7404 2 Ā 1 5
4

+5V
U2 UDN 5712M
8
5
R1 47 ½W
Ā 13 U5 7404 12 A 1
6
4

+12V
R23 Ø
C4 .1
C2 47

J3
1 YEL
2 BRN
3 ORN
4 BLK
5 RED
6 RED

NOTE: COLORS REFER TO MOTOR WIRING.

+5V
R24 150
WRT PROTECT LED
CR3
—002 VERSION ONLY

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

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES:
XX ±
XXX ±   ANGULAR ± 1/2°
X/X̄ ±
BREAK ALL SHARP CORNERS
APPROX .010

SIGNATURES	DATE
DR	
CHK	
DES	
ENGR	
PROJ. ENGR	

FINISH:
MATL:

Tandon CORPORATION

TITLE
MODEL TM-50 MOTOR CONTROL SCHEMATIC

SIZE	CODE IDENT NO	DWG NO.	REV
C		210439	H

SCALE NONE   DO NOT SCALE DWG   SHEET 3 OF 3

EDC-041-8/81