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\* NOTES:

1. VACUUM SWITCHES ARE CLOSED WHEN A VACUUM (10<sup>-2</sup> H<sub>2</sub>O) EXISTS AT THE ASSOCIATED PORT IN COLUMN.

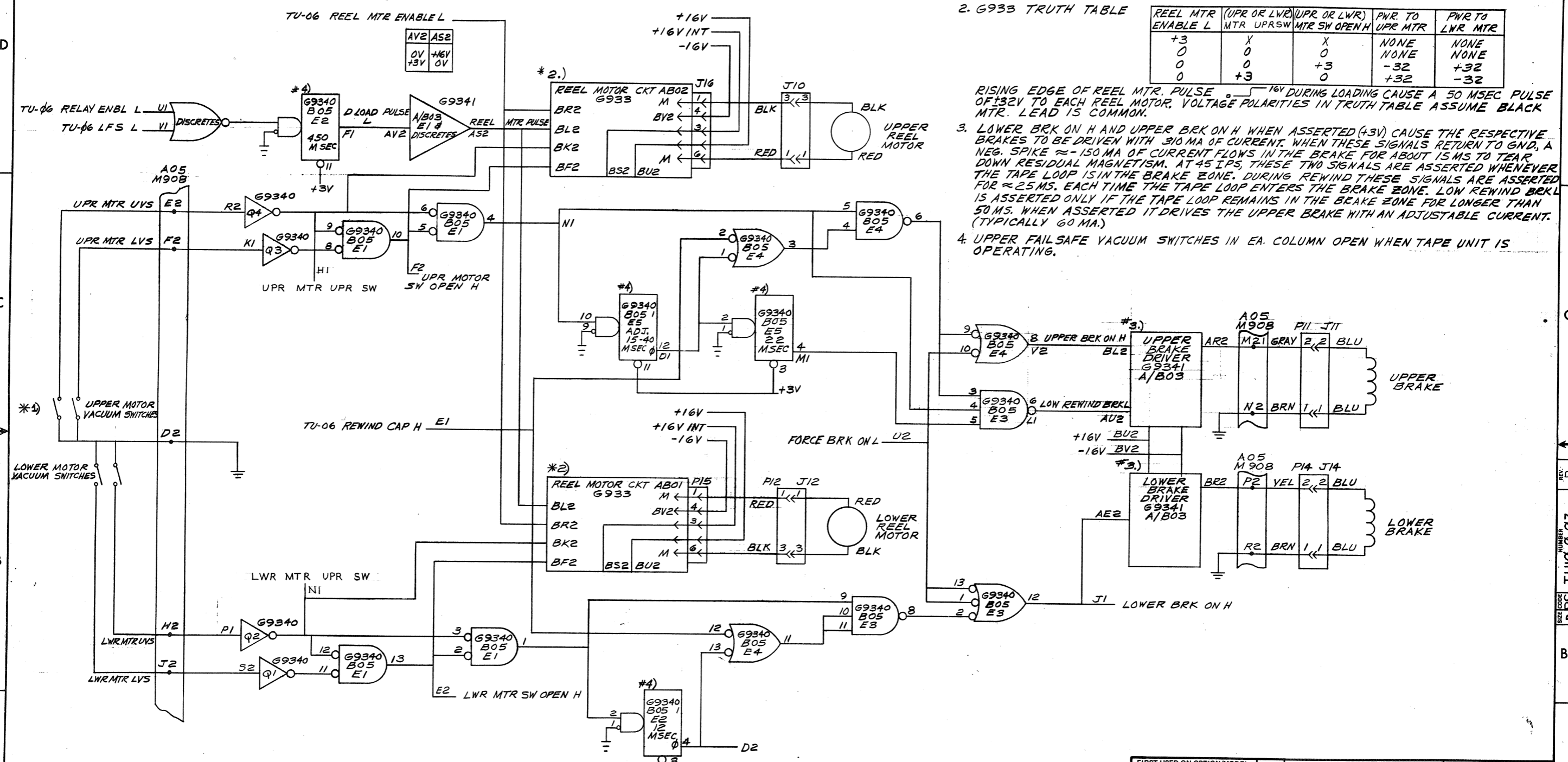
2. G933 TRUTH TABLE

REEL MTR ENABLE L	(UPR OR LWR) MTR UPR SW	(UPR OR LWR) MTR SW OPEN H	PWR TO UPR MTR	PWR TO LWR MTR
+3	X	X	NONE	NONE
0	0	0	NONE	NONE
0	0	+3	-32	+32
0	+3	0	+32	-32

3. RISING EDGE OF REEL MTR. PULSE 16V DURING LOADING CAUSE A 50 MSEC PULSE OF 132V TO EACH REEL MOTOR. VOLTAGE POLARITIES IN TRUTH TABLE ASSUME BLACK MTR. LEAD IS COMMON.

4. LOWER BRK ON H AND UPPER BRK ON H WHEN ASSERTED (+3V) CAUSE THE RESPECTIVE BRAKES TO BE DRIVEN WITH 310 MA OF CURRENT. WHEN THESE SIGNALS RETURN TO GND, A NEG. SPIKE ≈ -150 MA OF CURRENT FLOWS IN THE BRAKE FOR ABOUT 15 MS TO TEAR DOWN RESIDUAL MAGNETISM. AT 45 IPS, THESE TWO SIGNALS ARE ASSERTED WHENEVER THE TAPE LOOP IS IN THE BRAKE ZONE. DURING REWIND THESE SIGNALS ARE ASSERTED FOR ≈ 25 MS. EACH TIME THE TAPE LOOP ENTERS THE BRAKE ZONE. LOW REWIND BRK L IS ASSERTED ONLY IF THE TAPE LOOP REMAINS IN THE BRAKE ZONE FOR LONGER THAN 50 MS. WHEN ASSERTED IT DRIVES THE UPPER BRAKE WITH AN ADJUSTABLE CURRENT. (TYPICALLY 60 MA.)

5. UPPER FAILSAFE VACUUM SWITCHES IN EA. COLUMN OPEN WHEN TAPE UNIT IS OPERATING.



10

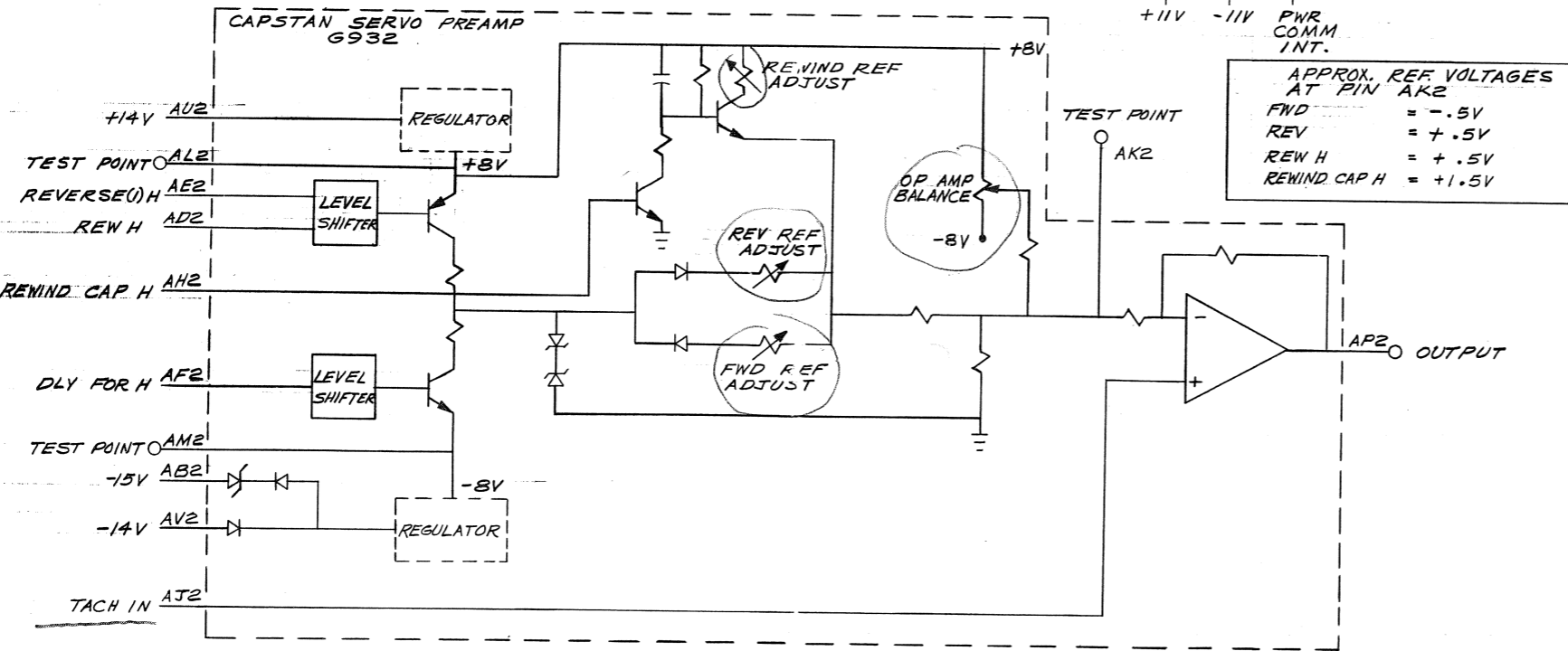
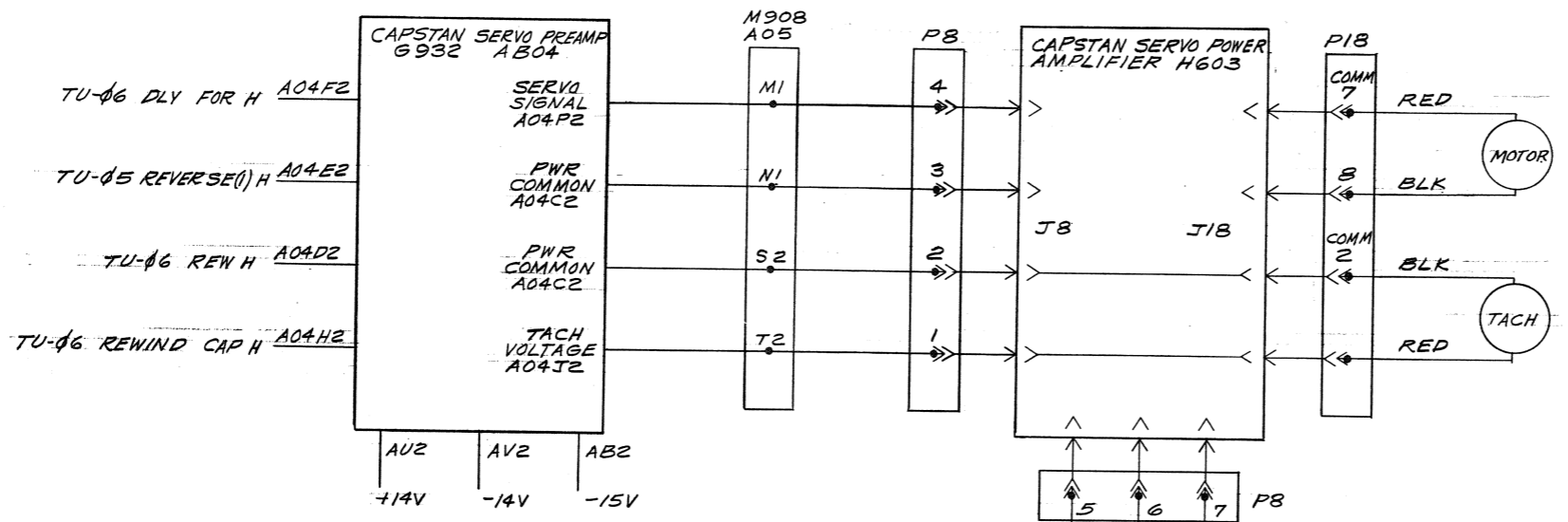
REV.	CHANGE NO.	DATE
A	TU10-00036	5/11/71
B	TU10-00042	6-21-71
C	TU10-00042	6-21-71

REVISIONS

CHK	BY	DATE
1	J. BARDONE	5/11/71
2	J. BARDONE	6-21-71
3	J. BARDONE	6/22/71

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
TU10				
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES.	DRN B. EMMA	DATE 1-29-71	digital EQUIPMENT CORPORATION	
TOLERANCES	CHK'D A. RAIMONDI	DATE 2-17-71	MAYNARD, MASSACHUSETTS	
DECIMALS .XXX = .005	ENG. J.R. HESS	DATE 2-17-71	TITLE TU10 MOTOR CONTROL	
ANGLES ±0° 30'	PROJ. ENG. J. BARDONE	DATE 2-17-71	(MASTER/SLAVE) TU-03	
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY	PROD. B.E. CROSS	DATE 2-17-71	MATERIAL NEXT HIGHER ASSY.	
			A-ML-TU10-0	
			SCALE	
			SHEET 1 OF 2	
			DIST.	
			SIZE CODE NUMBER REV.	
			DBS TU10-0-03 B	

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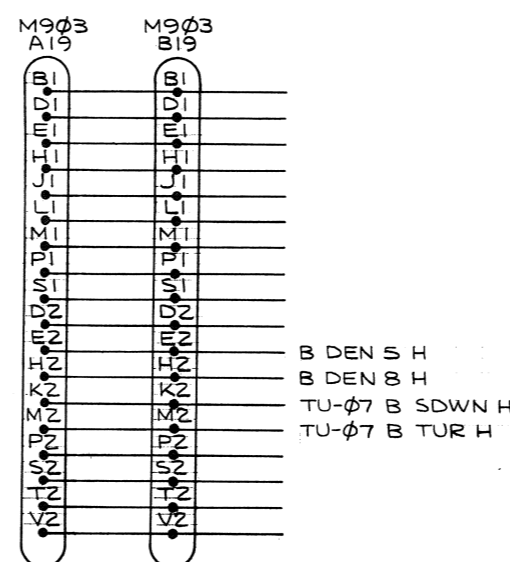
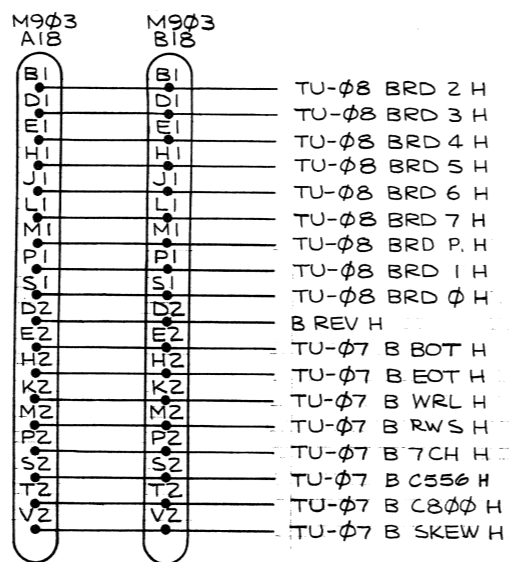
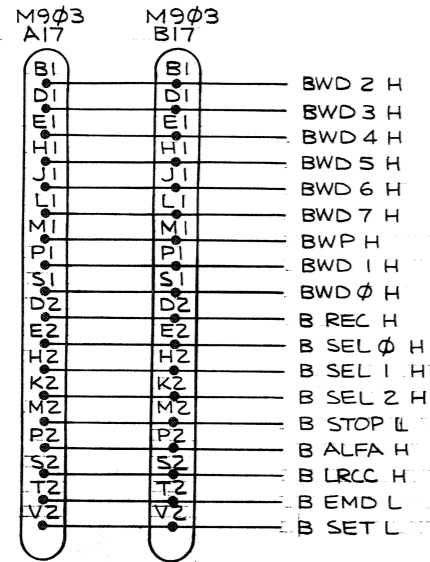


APPROX. REF VOLTAGES AT PIN AK2  
 FWD = -.5V  
 REV = +.5V  
 REW H = +.5V  
 REWIND CAP H = +1.5V

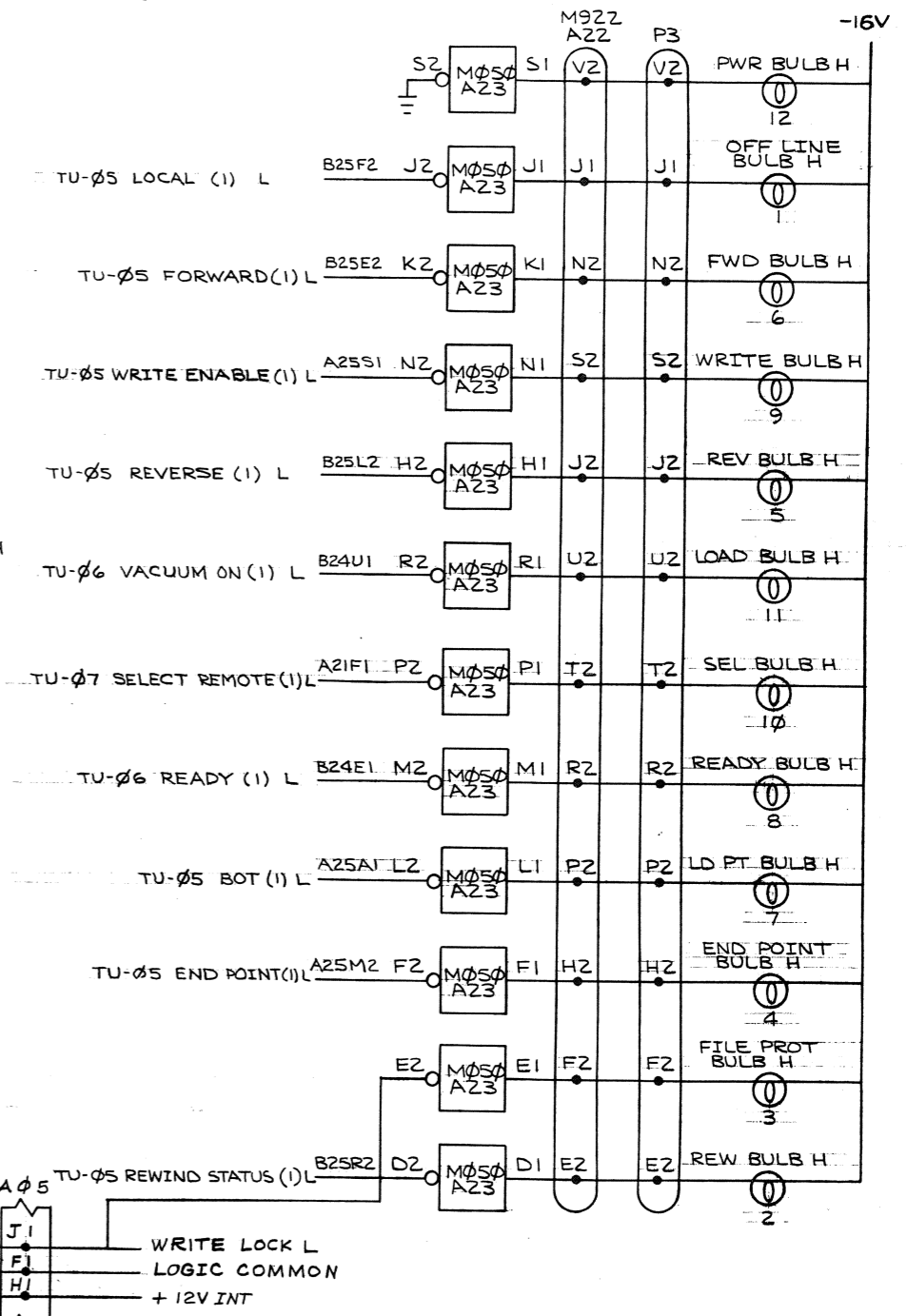
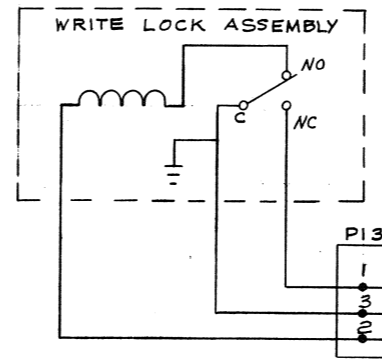
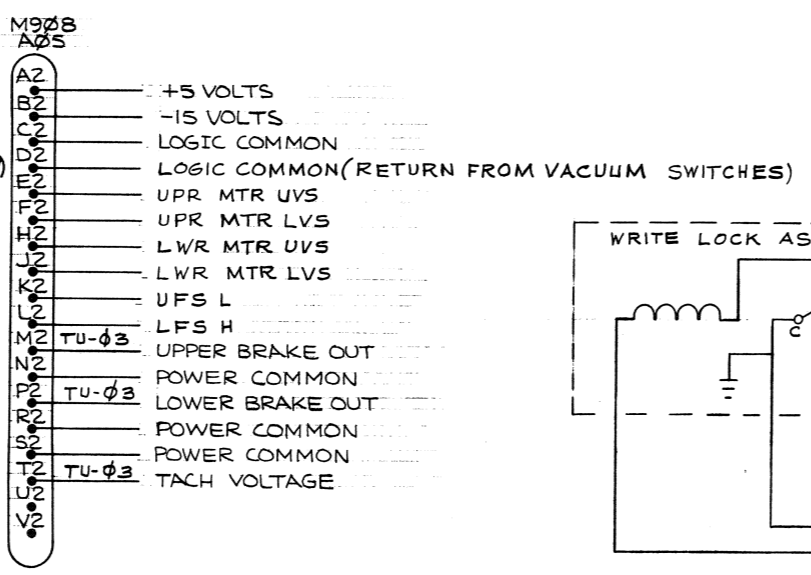
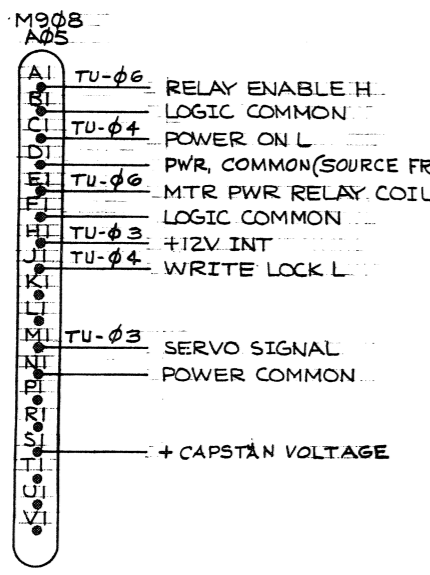
REV.	
CHANGE NO.	
CHK	

FIRST USED ON OPTION/MODEL TUIØ	QTY.	DESCRIPTION	PART NO.	ITEM NO.
UNLESS OTHERWISE SPECIFIED	DRN B. EMMA	DATE 1-29-71	PARTS LIST	
UNLESS OTHERWISE SPECIFIED	CHK'D A. RAIMONDI	DATE 2-17-71	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
TOLERANCES	ENG. J. R. HESS	DATE 2-17-71	TITLE TUIØ MOTOR CONTROL (MASTER/SLAVE) TU-Ø3	
DECIMALS FRACTIONS INCHES	PROJ. ENG. J. BARDONE	DATE 2-17-71	NEXT HIGHER ASSY. A-ML-TUIØ-Ø	
± .005 ± 1/64 ± 0°30'	PROD. B. E. CROSS	DATE 2-17-71	SIZE CODE DBS TUIØ-Ø-Ø3	NUMBER 2
FINAL SURFACE QUALITY REMOVE BURRS AND BREAK SHARP CORNERS			DIST.	REV. B
MATERIAL / /	SCALE / /	SHEET 2 OF 2		

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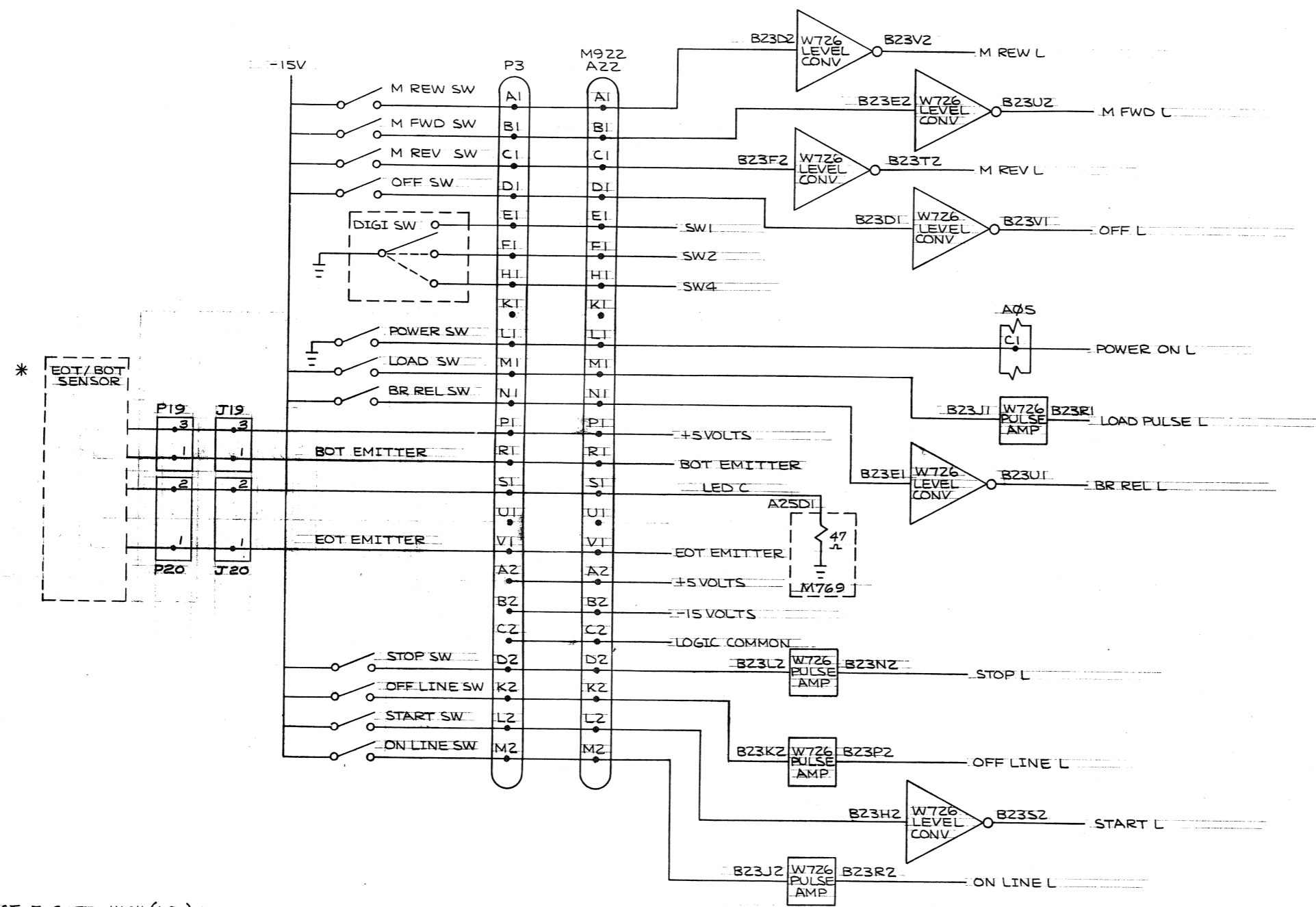
NOTE: UNREFERENCED SIGNALS ON SLOTS 17, 18 & 19, COME FROM BUSS IN TU-10 SLAVES AND FROM MASTER (SEE TU-12) IN TU-10 MASTERS.



REV.	CHANGE NO.	DATE	BY
A	TU10-00036	5/19/71	BARDONE
B	TU10-00042	6/21/71	BARDONE
C	TU10-00050	9/10/71	BARDONE
J-HESS		9/14/71	

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
TU10				
UNLESS OTHERWISE SPECIFIED				
DRN. DATE	PARTS LIST			
CHK'D. DATE	digital EQUIPMENT CORPORATION			
ENG. DATE	MAYNARD, MASSACHUSETTS			
PROJ. ENG. DATE	TITLE			
PROD. DATE	TU10 CONNECTORS/INDICATORS			
MATERIAL				
FINISH				
SCALE NONE				
SHEET 1 OF 2				
SIZE CODE NUMBER REV.				
D BS TU10-0-04 C				

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NOTE \*

1. BOT E GOES HIGH (+3V) WHEN BEGINNING OF TAPE MARKER IS SENSED.
2. BOT E GOES HIGH (+3V) WHEN END OF TAPE MARKER IS SENSED.
3. LIGHT EMITTING DIODE IS IN THE INFRARED RANGE AND IS NOT VISIBLE.

REV	
CHANGE NO.	
CHK	

FIRST USED ON OPTION/MODEL TUI0	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PARTS LIST				
UNLESS OTHERWISE SPECIFIED	DRN. A. Remond	DATE 1-26-71	digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS	
UNLESS OTHERWISE SPECIFIED	CHKD. E. Emma	DATE 3-17-71	TITLE TUI0 CONNECTORS/INDICATORS	
TOLERANCES	ENG. V. R. Hill	DATE 2-17-71	(MASTER/SLAVE) TU-04	
DECIMALS FRACTIONS ANGLES	PROJ. ENG. G. B. Borden	DATE 2-17-71	NEXT HIGHER ASSY A-ML-TUI0-0	
± .005 ± 1/64 ± 0°30'	PROD. G. Elms	DATE 2-17-71	SCALE NONE	
FINAL SURFACE QUALITY REMOVE BURRS AND BREAK SHARP CORNERS			SIZE CODE DBS TUI0-0-04	
MATERIAL			NUMBER	
FINISH			REV. C	
			SHEET 2 OF 2	
			DIST.	



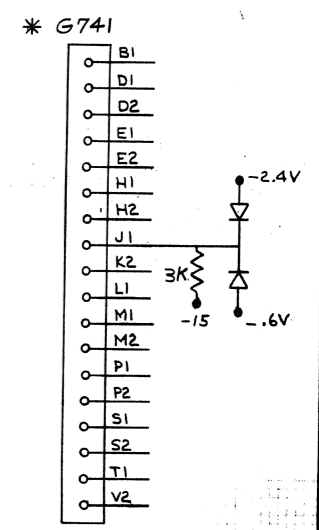
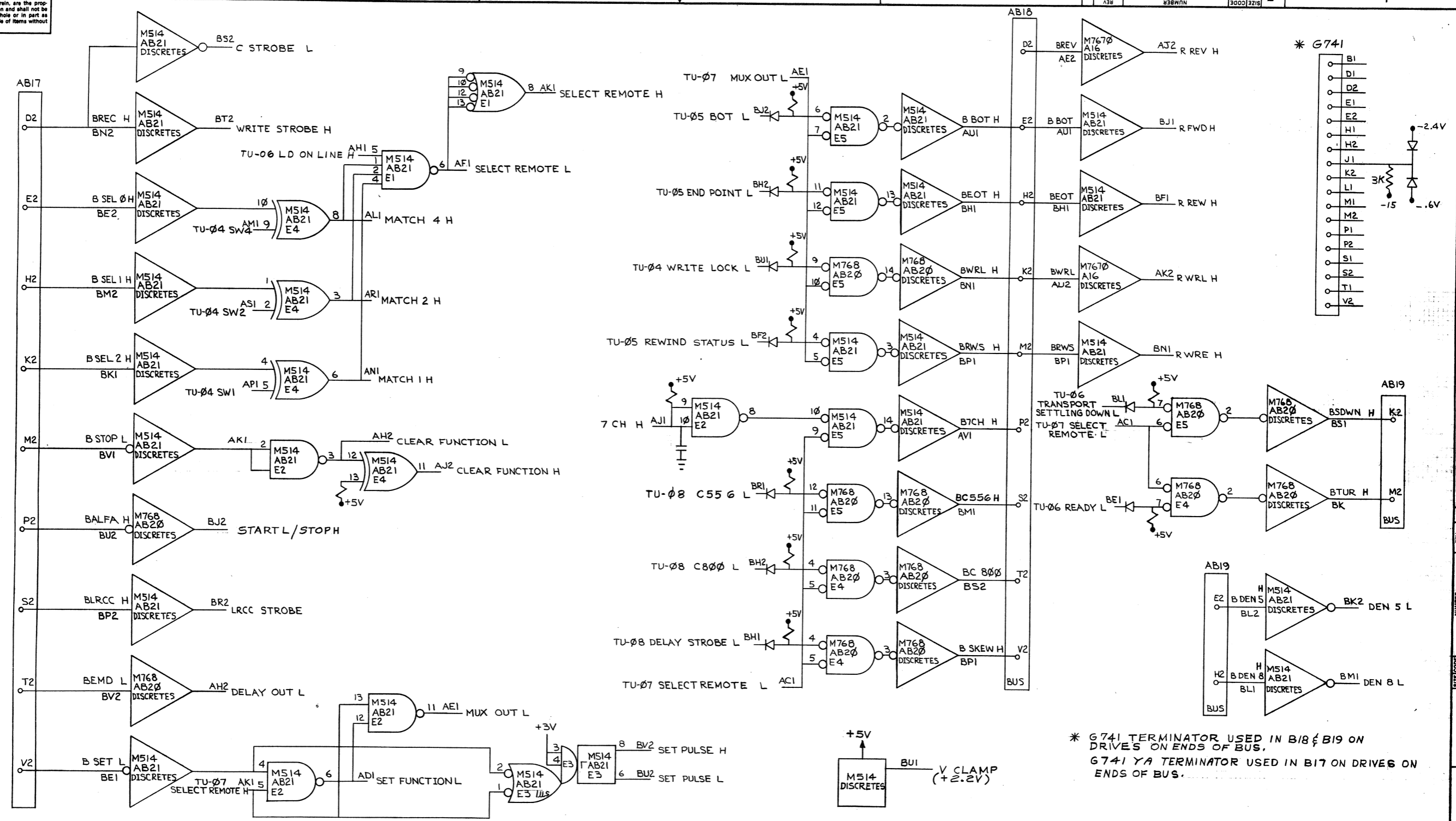


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10-0-0101 SB 2

D  
C  
B

D  
C  
B



\* G741 TERMINATOR USED IN B18 & B19 ON DRIVES ON ENDS OF BUS.  
G741 YA TERMINATOR USED IN B17 ON DRIVES ON ENDS OF BUS.

REV.	CHG. NO.	DATE	BY	CHK.
A	TUI0-00036	5/20/71	BARDONE	
B	TUI0-00050	9-14-71	J. HESS	
C	TUI0-00082	2-12-71	J. BARDONE	
D	TUI0-00174	2/27/71	J. BARDONE	

FIRST USED ON OPT/ MOD	QTY.	DESCRIPTION	PART NO.	ITEM NO.
TUI0				
PARTS LIST				
UNLESS OTHERWISE SPECIFIED				
DRN. DATE 1-25-71				
DATE 2-17-71				
DATE 2-12-71				
DATE 2-12-71				
DATE 2-17-71				
DATE 2-17-71				
NEXT HIGHER ASSY				
A-ML-TUI0-0				
SCALE				
SHEET 1 OF 1				
TITLE				
TUI0 BUS LOGIC				
(MASTER/SLAVE) TU-07				
SIZE CODE				
D B S T U I 0 - 0 - 0 7				
NUMBER				
REV. C				
DIST.				

DEC FORM NO 010 102A

8

7

6

5

4

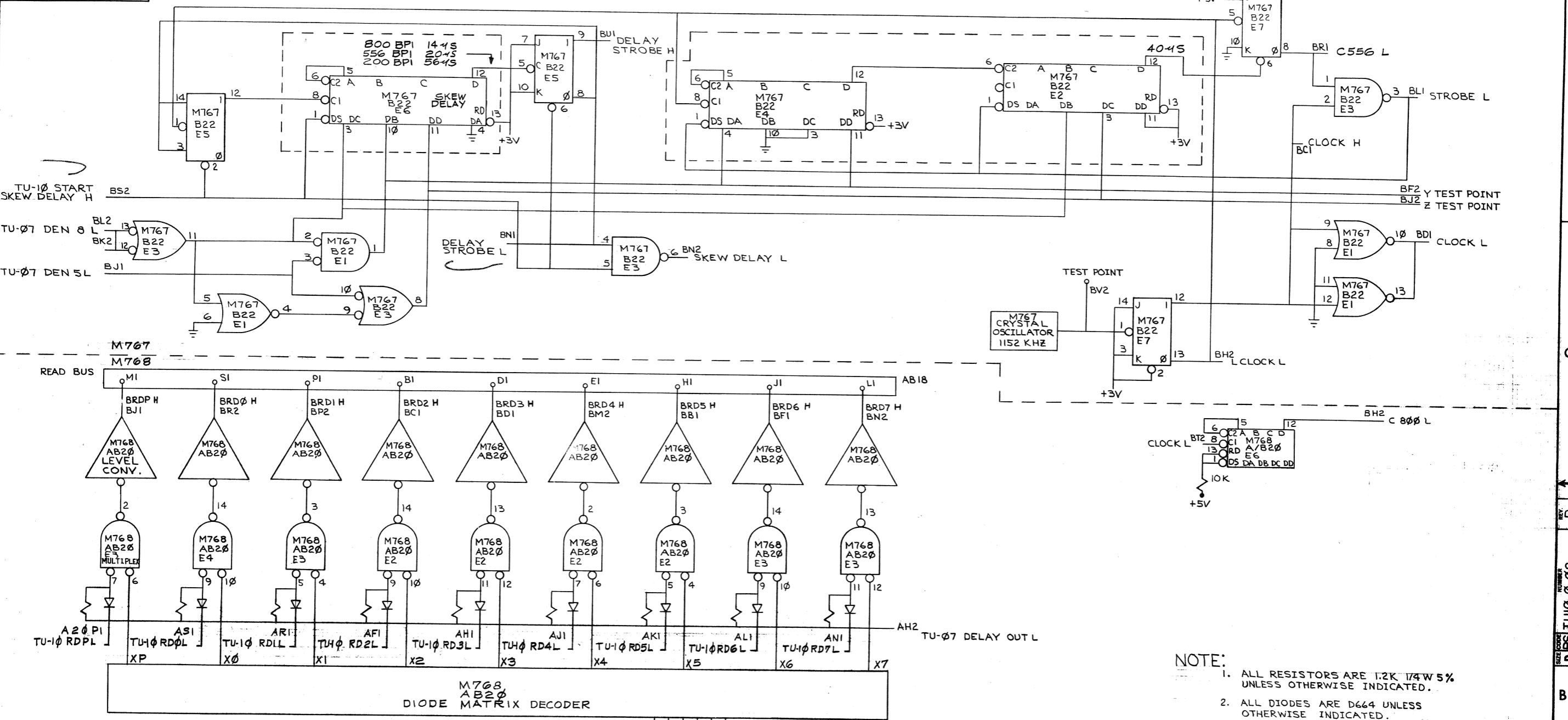
3

2

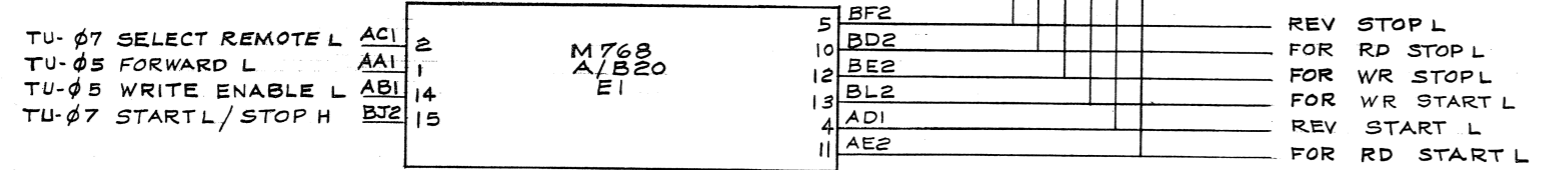
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REV. C  
D B S T U I 0 - 0 - 0 7

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- NOTE:
1. ALL RESISTORS ARE 1/2K 1/4W 5% UNLESS OTHERWISE INDICATED.
  2. ALL DIODES ARE D664 UNLESS OTHERWISE INDICATED.

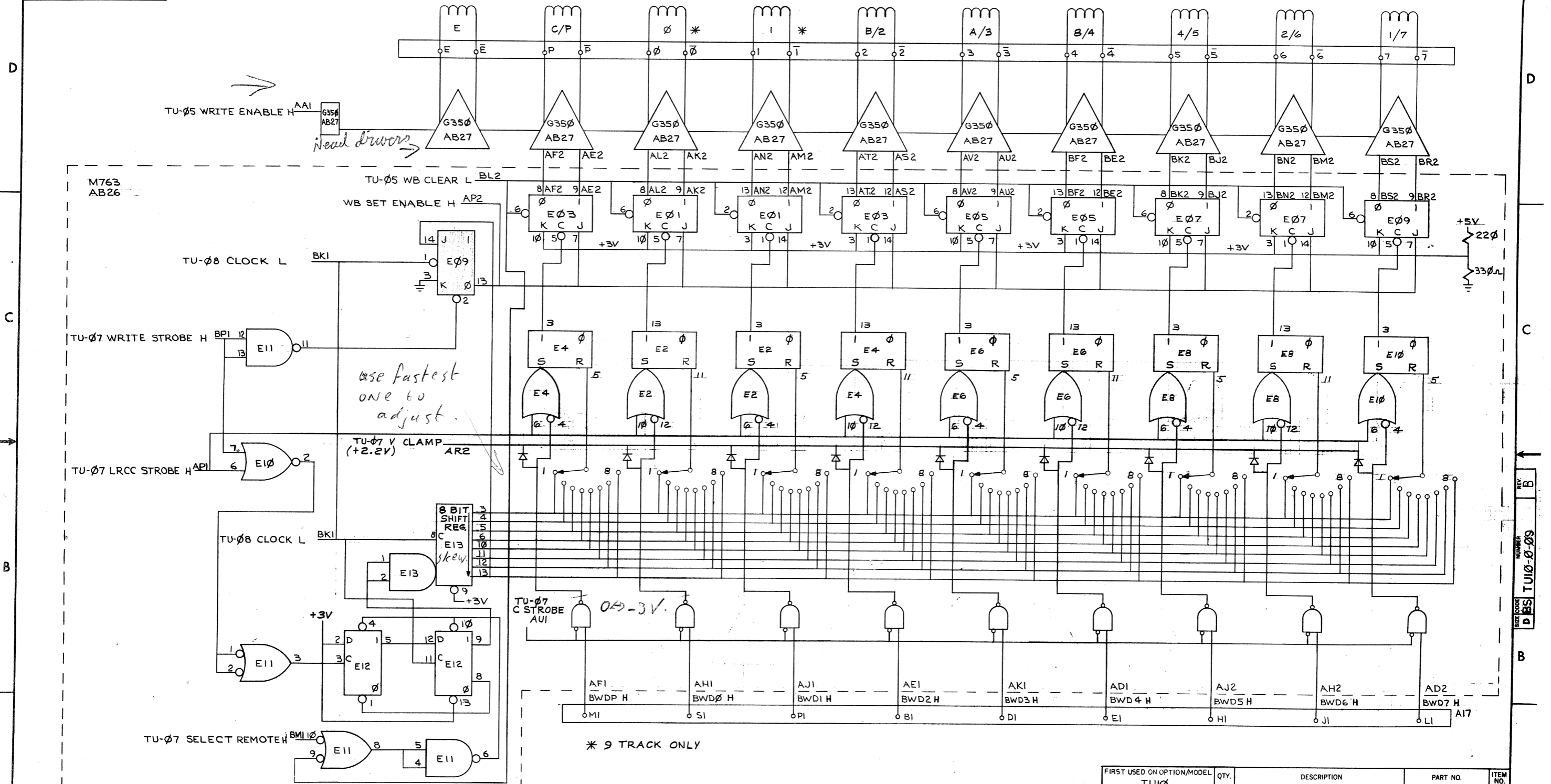


REV.	CHG.	NO.	DATE	BY
A	1	00036	2-17-71	Barone
B	1	00050	2-17-71	J-Hess

FIRST USED ON OPT/MOD	QTY.	DESCRIPTION	PART NO.	ITEM NO.
TUI0				
PARTS LIST				
digital EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS				
TITLE: TUI0 READ WRITE TIMING LOGIC (MASTER/SLAVE) TU-08				
SIZE CODE: DBS TUI0-0-08				
NUMBER: 1				
REV: B				

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8 7 6 5 4 3 2 1  
 B 60-0-0111 SB 2  
 3300 3215



REV	CHANGE NO.	DATE	BY	CHK
A	00036	1/13/71	BARDONE	
B	00050	9-9-71	J-HESS	
		9-14-71	Y-Hess	

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
TU09		WRITE CIRCUITRY (MASTER/SLAVE) TU-09		

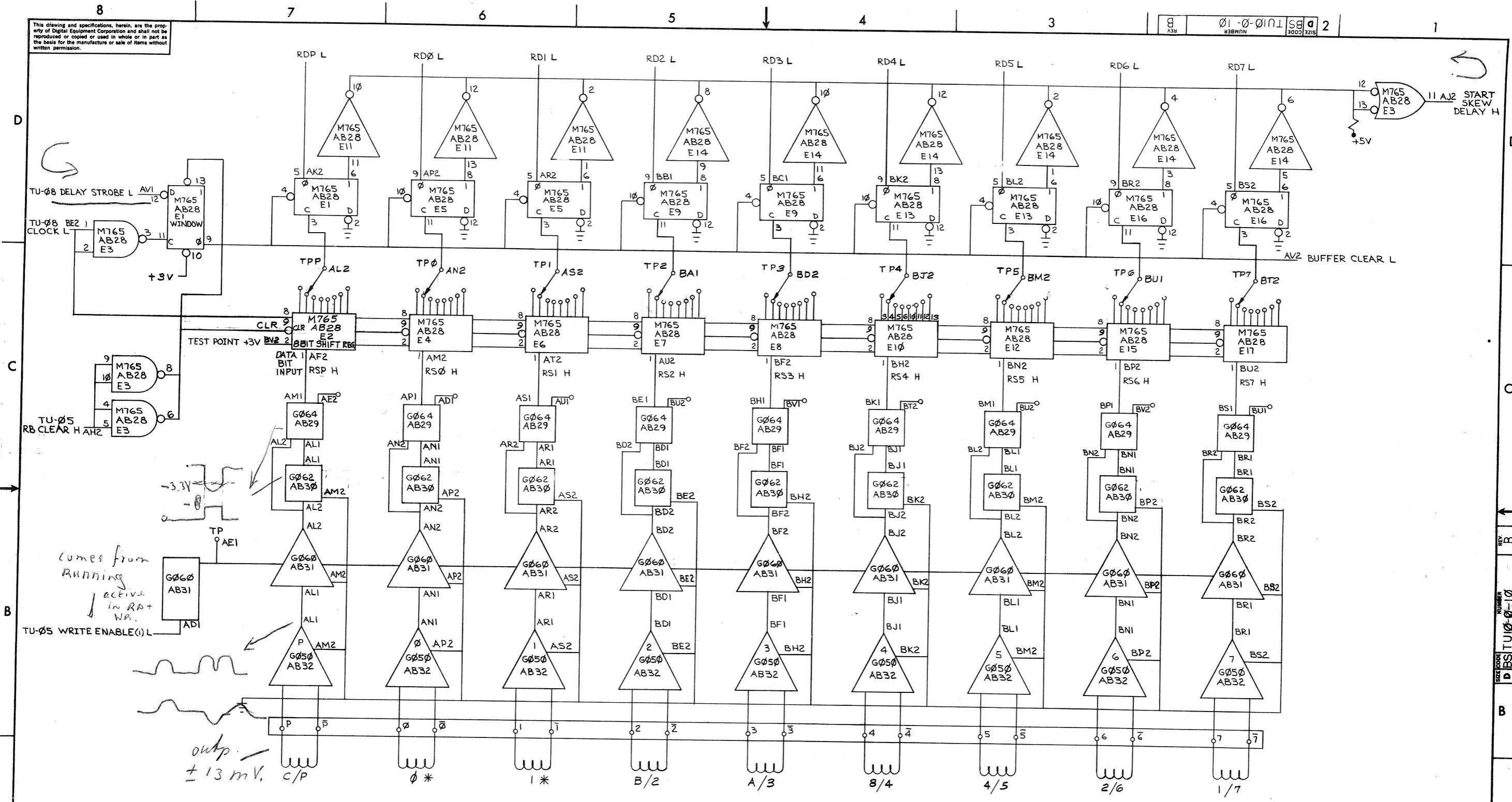
UNLESS OTHERWISE SPECIFIED	DRN	DATE	CHK'D	DATE
TOLERANCES				
DECIMALS				
FRACTIONS				
ANGLES				
FINAL SURFACE QUALITY				
REMOVE BURRS AND BREAK SHARP CORNERS				

MATERIAL	FINISH	SCALE	SHEET	OF
			1	1

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Ø1-Ø-Ø1Ø1 ØB Ø 2



REV.	CHANGE NO.	DATE	BY	CHKD.
1	00035	1/17/71	A	
2		2/17/71	B	
3		2/17/71	B	

BARDONE  
 J. HESS  
 9-9-71  
 9-14-71

FIRST USED ON OPT/MOD	QTY.	DESCRIPTION	PART NO.	ITEM NO.
TUIØ				
PARTS LIST				
<b>digital</b> EQUIPMENT CORPORATION MAYNARD, MASSACHUSETTS				
TITLE: TUIØ READ CIRCUITRY (MASTER/SLAVE) TU-Ø				
SIZE CODE: D B S T U I Ø - Ø - 1 Ø				
NUMBER: B				
SCALE: 1 OF 1				
SHEET: 1 OF 1				



**DIGITAL EQUIPMENT CORPORATION**  
MAYNARD, MASSACHUSETTS  
**PARTS LIST**

QUANTITY / VARIATION

MADE BY R.J. EMMA	CHECKED <i>A. Rainaldi</i>	SECTION 1
DATE 2/18/71	DATE 2-19-71	ISSUED SECT. 1
ENG <i>John Hood</i>	PROD <i>BE 6000</i>	
DATE 2/23/71	DATE 2-23-71	

ITEM NO.	DWG NO. / PART NO.	DESCRIPTION	1																	
	G050	DUAL GAP HEAD READ AMP	1																	
	G060	MAG TAPE COMPRESSOR, 9 TRACK	1																	
	G062	MAG TAPE PEAK DETECTOR, 9 TRACK	1																	
	G064	MAG TAPE SLICER, 9 TRACK	1																	
	G350	MAG TAPE WRITE DRIVER	1																	
	G741	NEG CLAMP LOAD	2																	
	G932	CAPSTAN SERVO PRE AMP	1																	
	G933	REEL MOTOR AMP	2																	
	M050	INVERTER DRIVER	1																	
	M514	TU10 TRANSCEIVER	1																	
	W726	SWITCH FILTER	1																	
	M763	9 TRACK WRITE BUFFER	1																	
	M765	9 TRACK READ BUFFER	1																	
	M767	CLOCK & SKEW DELAY	1																	
	M768	DELAY SELECTOR	1																	
	M769	FUNCTION CONTROL	1																	
	M890	MOTION CONTROL	1																	
	<del>G934</del>	<del>BRAKE ACTUATOR</del>	<del>1</del>																	
	M7670	FORWARD BOT TIMER	1																	
	G9340	BRAKE LOGIC	1																	
	G9341	BRAKE ACTUATOR	1																	
	G741YA	NEG. CLAMP LOAD	1																	

TITLE MODULE UTILIZATION PL	ASSY NO. D-MU-TU10-0-11	SIZE CODE <b>A PL</b>	NUMBER TU10-0-11	REV. C	ECO NO. TU10 00065
SHEET 1 OF 1		DIST.			

DEC FORM NO. 110