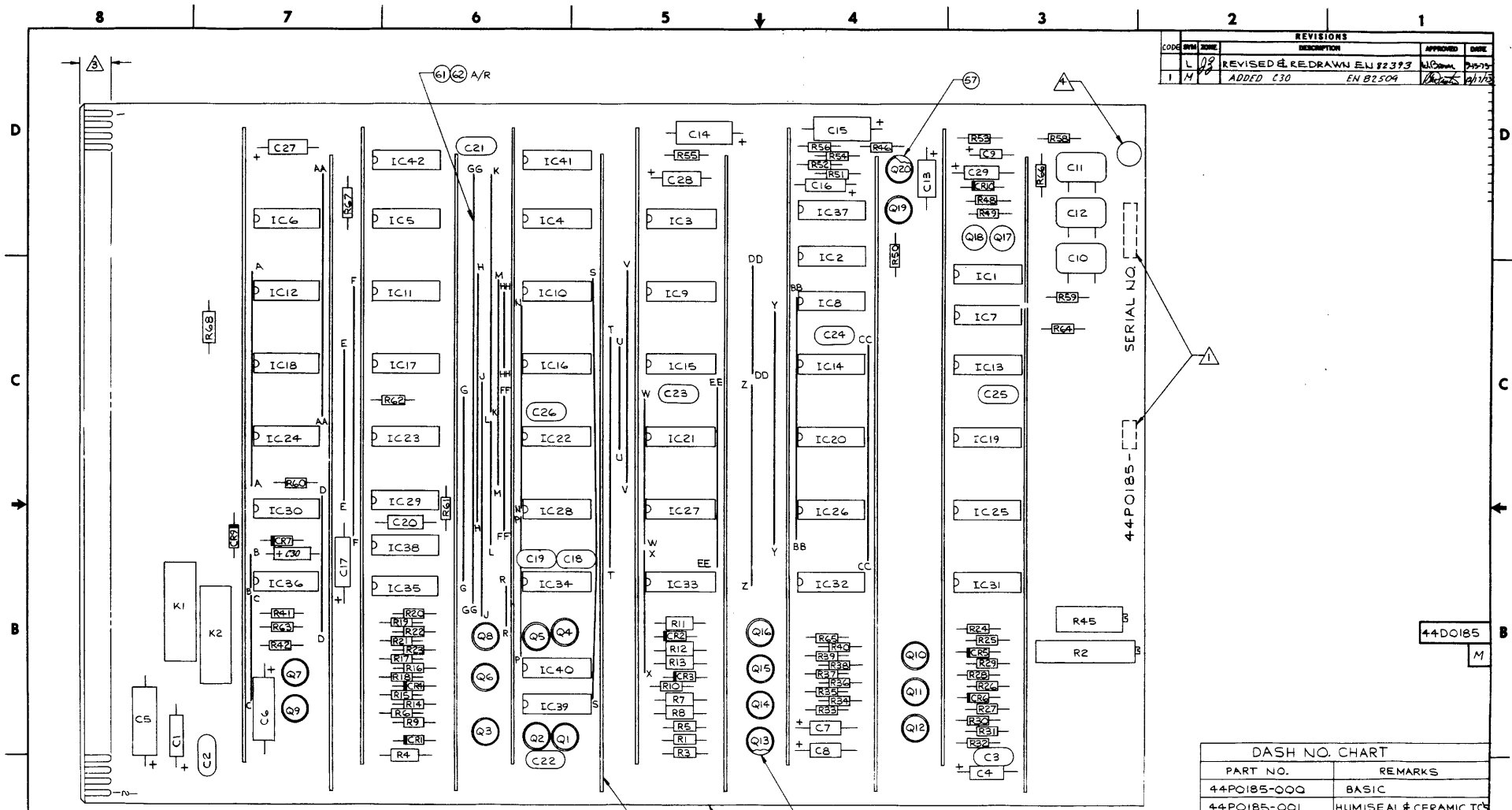


REVISIONS				APPROVED	DATE
CODE	BY	DATE	DESCRIPTION		
1	M	7/1/73	ADDED C30	EN B2504	11/1/73
1	M	7/1/73	REVISED & REDRAWN EN 82373		



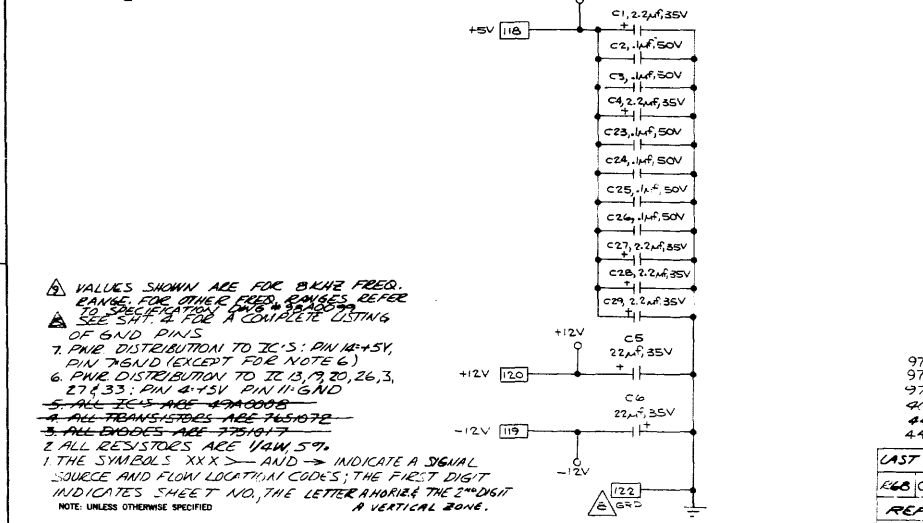
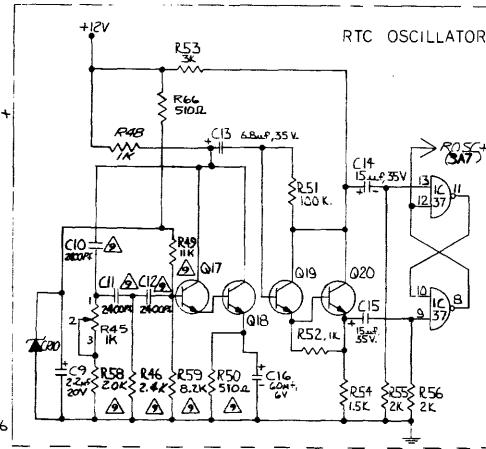
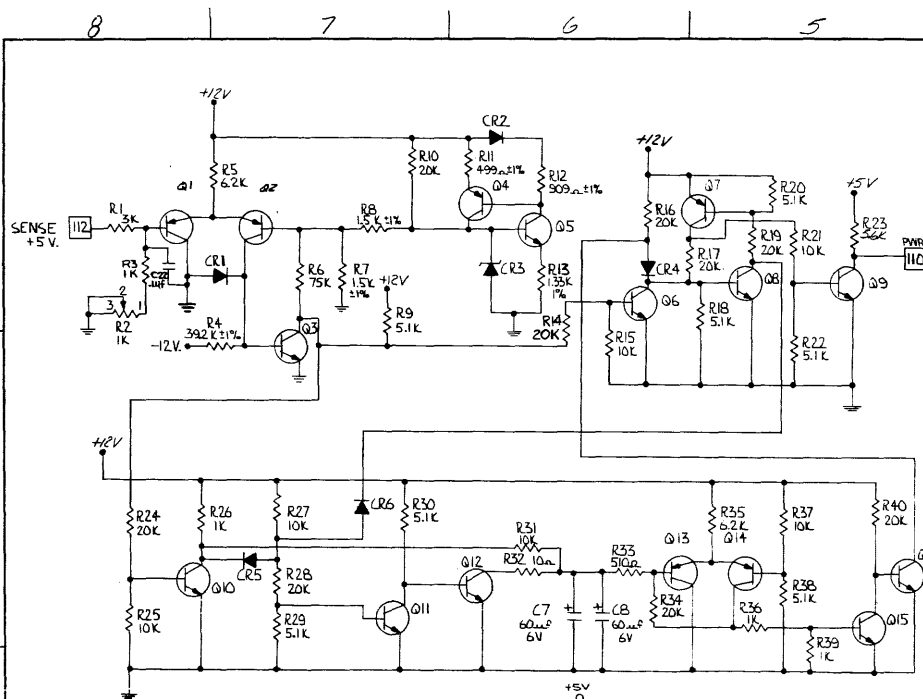
DASH NO. CHART	
PART NO.	REMARKS
44PO185-000	BASIC
44PO185-001	HUMISEAL & CERAMIC IC'S

FOR PARTS LIST SEE 44PO185

- E. MAXIMUM COMPONENT HEIGHT TO BE .45
  - ▲ PERMANENTLY APPLY .3 YELLOW DOT (-001 ONLY) TO BOARD APPROX WHERE SHOWN.
  - ▲ AFTER TEST AND PRIOR TO ACCEPTANCE TEST (-001 ONLY) MASK OFF CONNECTOR CONTACT AREA ON BOTH SIDES OF F/N 1, TOTALLY COAT BOTH SIDES OF ASSY WITH F/N 74.
  - 2. FOR ENGR DESCR OF REAL TIME CLOCK OPTION (420/-13) SEE DWG 98A0116.
  - ▲ MARK PART WITH REVISION LETTER OF THE PARTS LIST TO WHICH THE PART WAS MANUFACTURED, AND SERIAL NUMBER, APPROXIMATELY WHERE SHOWN, IDENTIFICATION TO BE .12 HIGH CHARACTERS, PERMANENT & LEGIBLE.
- NOTE: UNLESS OTHERWISE SPECIFIED

REFERENCE DRAWINGS  
 97D0642 SILKSCREEN  
 97D0641 SOLDER MASK  
 44PO185 PARTS LIST  
 40D0201 BOARD DETAIL  
 97D0134 PHOTOMASTER  
 95D0135 LOGIC DIAGRAM

MODEL NO. 420/-13/14	DIMENSIONS ARE IN INCHES AND AFTER FINISHING	DR. J. NAUGHTON	 <small>Various data machines in water subsidiary</small> <small>222 Michigan Ave / Ann Arbor / MI 48104</small>
NEXT ASSY	TOLERANCES UNLESS OTHERWISE SPECIFIED	CHK. J. EVERS	
MATERIAL	BREAK ALL SHARP EDGES TO R APPROX	ENGR. T. E. HANSON	TITLE ASSEMBLY DM123-3 PF/R AND RTC
FINISH	DO NOT SCALE DRAWING	APPD.	CODE IDENT. NO. 21101 SIZE D DWG NO. 44DO185 SHEET 1 OF 1



△ VALUES SHOWN ARE FOR BK42 FREQ. RANGES. FOR OTHER FREQ. RANGES REFER TO SPECIFICATION SHEET # 4440185.  
 △ SEE SMT 2 FOR A COMPLETE LISTING OF GND PINS.  
 7. PINE DISTRIBUTION TO IC'S: PIN 14 +5V, PIN 7 GND (EXCEPT FOR NOTE 6).  
 6. PINE DISTRIBUTION TO IC 13, 19, 20, 26, 3, 27 & 33. PIN 8 +5V. PIN 11 GND.  
 5. ALL IC'S ARE 99A0000.  
 4. ALL TRANSISTORS ARE 74S1072.  
 3. ALL DIODES ARE 74S1017.  
 2. ALL RESISTORS ARE 1/4W, 5%.  
 1. THE SYMBOLS XXX → AND → INDICATE A SIGNAL SOURCE AND FLOW LOCATION CODES; THE FIRST DIGIT INDICATES SHEET NO., THE LETTER AND THE 2<sup>ND</sup> DIGIT A VERTICAL ZONE.  
 NOTE: UNLESS OTHERWISE SPECIFIED

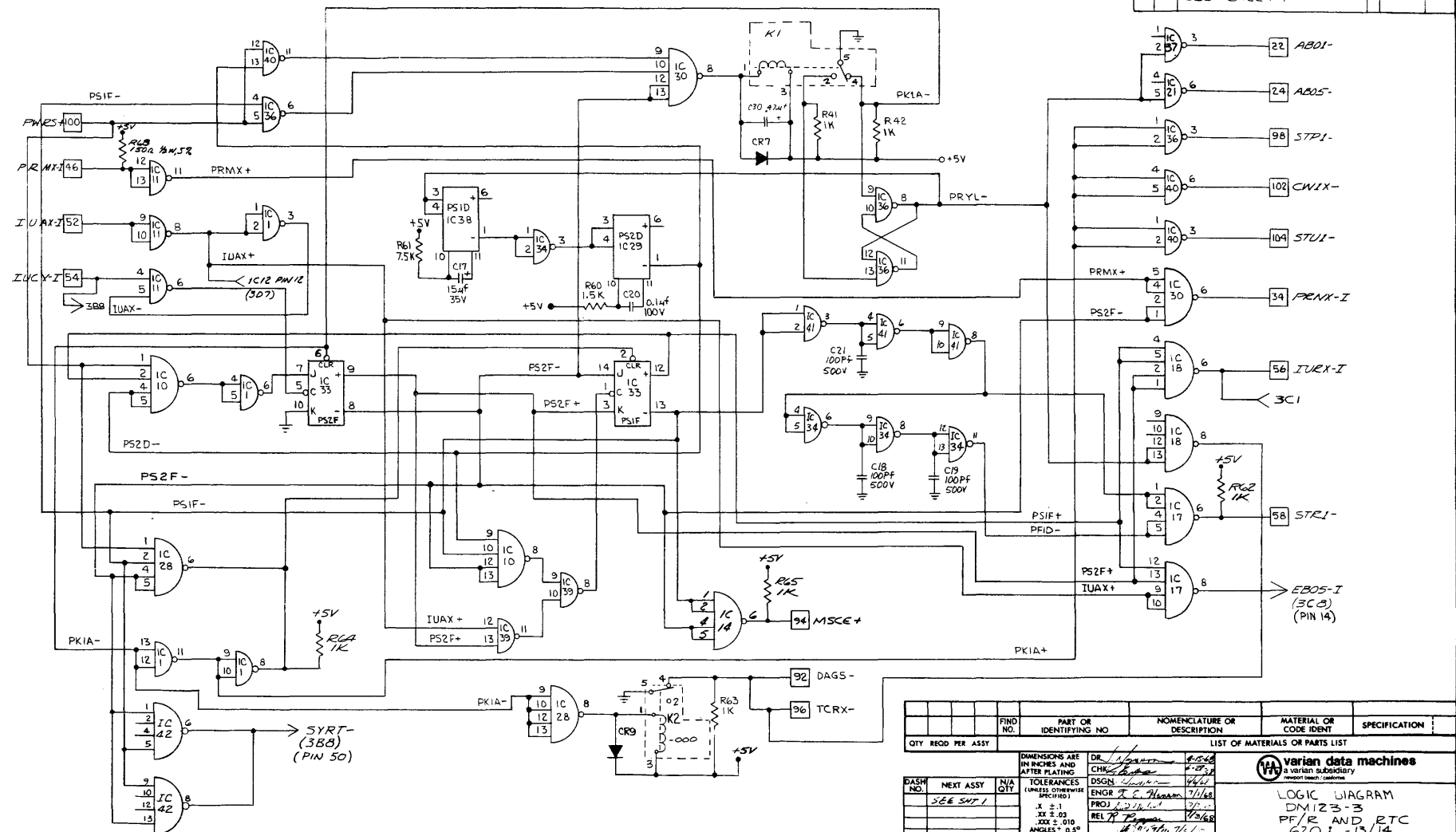
**REFERENCE DRAWINGS**  
 9700642 - SILKSCREEN  
 9700641 - SOLDERMASK  
 9700134 - PHOTOMASK  
 4400201 - B. J. DETAIL  
 4400185 - ASSEMBLY  
 4400185 - PARTS LIST  
**LAST REFERENCE DESIGNATIONS USED**  
 R68 C30 C20 120 IC42 K2  
**REFERENCE DESIGNATIONS NOT USED**  
 CR8, R57, R43, R64, R47

REVISION		DESCRIPTION	DATE	APPROVED	DATE
1	MAY BE REWORKED	3-NOW SHOP PRACTICE			
2	CANNOT BE REWORKED	4-RECORD CHANGE			
3		5-PARTS MADE OK			
X-1		PROTOTYPE RELEASE	2/26/68		
X-2		REVISED & RE-DRAWN	2/26/68		
X-3		REVISED & RE-DRAWN	2/26/68		
A		PRODUCTION RELEASE, ON 7301	2/26/68		
B		R45 IS 1K WAS SDD. PER EN 2476	2/26/68		
C		ADDED IC42 PER EN 2493	2/26/68		
D		ADDED IC42 PER EN 2765	2/26/68		
E		SMT 2 K14K2 B2A0015-000 WAS B2A00004-001 REVISED PIN NO. 5 PER EN 2598	2/26/68		
F		ADDED C810, DELETED Q21 PER EN 3224	2/26/68		
G		DELETED NOTES 3, 4, 5 & ALL VOM PINS FROM P/D PER EN 3471	11/14/69		
H		ADDED C22, 1uF CAP PER EN 5581	7/1/71		
J		ADDED SILKSCREEN AND SOLDERMASK TO REF DWG PER EN 80012	7/1/71		
K		ADDED C23 THRU C29 PER EN 81082	11/10/72		
L		ADDED C30 SMT 2 EN 82209	12/12/73		

QTY	REQD	PER	ASSY	FIND NO.	PART OR IDENTIFYING NO.	NOMENCLATURE OR DESCRIPTION	MATERIAL OR CODE IDENT	SPECIFICATION	
LIST OF MATERIALS OR PARTS LIST									
DIMENSIONS ARE IN INCHES AND AFTER PLATING				DR	APPROVED				
TOLERANCES (UNLESS OTHERWISE SPECIFIED)				CHK	APPROVED				
X ± .1				ENGR	APPROVED				
XXX ± .010				PROJ	APPROVED				
ANGLES: 0.5°				REL	APPROVED				
ALL MACHINED SURFACES				APPROVED					
DO NOT SCALE DRAWING				APPROVED					
NOTE TO DIMENSIONS SHOWN				APPROVED					
CODE IDENT NO		SIZE		SCALE		SHEET			
21101		D 9500135		1/8"		OF 4			

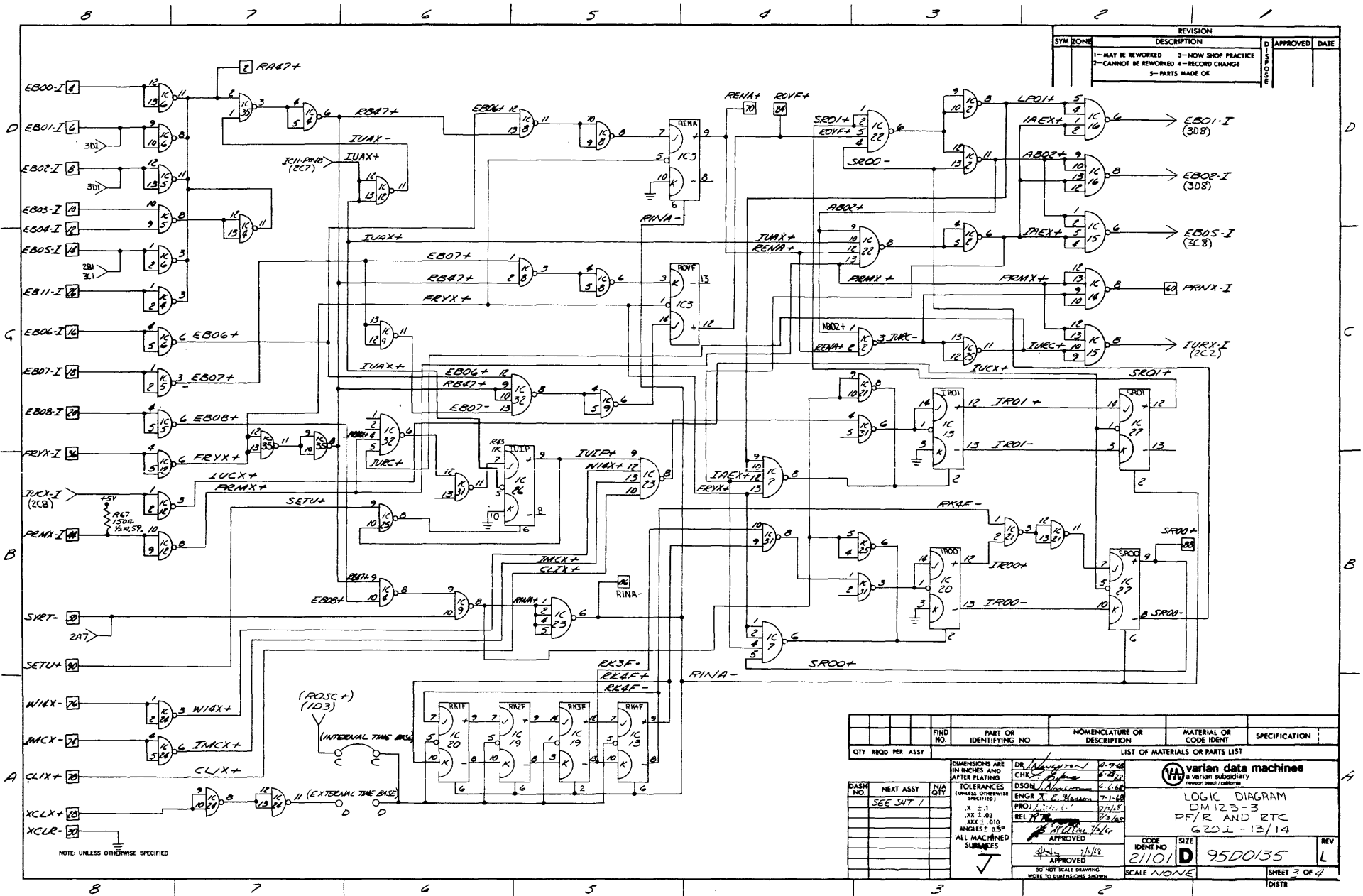
varian data machines  
 a varian subsidiary  
 LOGIC DIAGRAM  
 DM123-3  
 PFR AND RTC  
 6202-13/14  
 CODE IDENT NO: 21101  
 SIZE: D  
 9500135  
 REV: L

SYMBOL		REVISION		DESCRIPTION	APPROVED	DATE
1	MAY BE REWORKED	3	NOW SHOP PRACTICE			
2	CANNOT BE REWORKED	4	RECORD CHANGE			
		5	PARTS MADE OK			
SEE SHEET 1						



NOTE: UNLESS OTHERWISE SPECIFIED

QTY	REQD	PER	ASSY	FIND NO.	PART OR IDENTIFYING NO.	NOMENCLATURE OR DESCRIPTION	MATERIAL OR CODE IDENT	SPECIFICATION
LIST OF MATERIALS OR PARTS LIST								
DIMENSIONS ARE IN INCHES AND AFTER PLATING				DR. <i>[Signature]</i>		varian data machines		
TOLERANCES (UNLESS OTHERWISE SPECIFIED)				CHKD. <i>[Signature]</i>		a varian subsidiary		
X ± .1				ENGR. <i>[Signature]</i>		varian data machines		
XX ± .03				PROJ. <i>[Signature]</i>		LOGIC DIAGRAM		
XXX ± .010				REL. <i>[Signature]</i>		DM123-3		
ANGLES: 0.5°				APPROVED <i>[Signature]</i>		PF/E AND RTC		
ALL MACHINED SURFACES				APPROVED <i>[Signature]</i>		G202-13/14		
DO NOT SCALE DRAWING				APPROVED <i>[Signature]</i>		CODE IDENT NO. 21101		
WORK TO DIMENSIONS SHOWN				APPROVED <i>[Signature]</i>		SIZE D		
						SCALE NONE		
						SHEET 2 OF 4		
						101STR		



REVISION		APPROVED	DATE
1	MAY BE REWORKED		
2	CANNOT BE REWORKED		
3	NOW SHOP PRACTICE		
4	RECORD CHANGE		
5	PARTS MADE OK		

QTY		FIND NO.		PART OR IDENTIFYING NO.		NOMENCLATURE OR DESCRIPTION		MATERIAL OR CODE IDENT		SPECIFICATION	

LIST OF MATERIALS OR PARTS LIST											
DASH NO.	NEXT ASSY	QTY	DESCRIPTION	DATE							
SEE SHT 1											

DR	CHK	ENGR	PROJ	REL

LOGIC DIAGRAM	DM 123-3
PF/R AND ETC	6202-13/14

CODE IDENT NO	SIZE	REV
21101 D	95D0135	L

SCALE	NONE
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SHEET	2 OF 4
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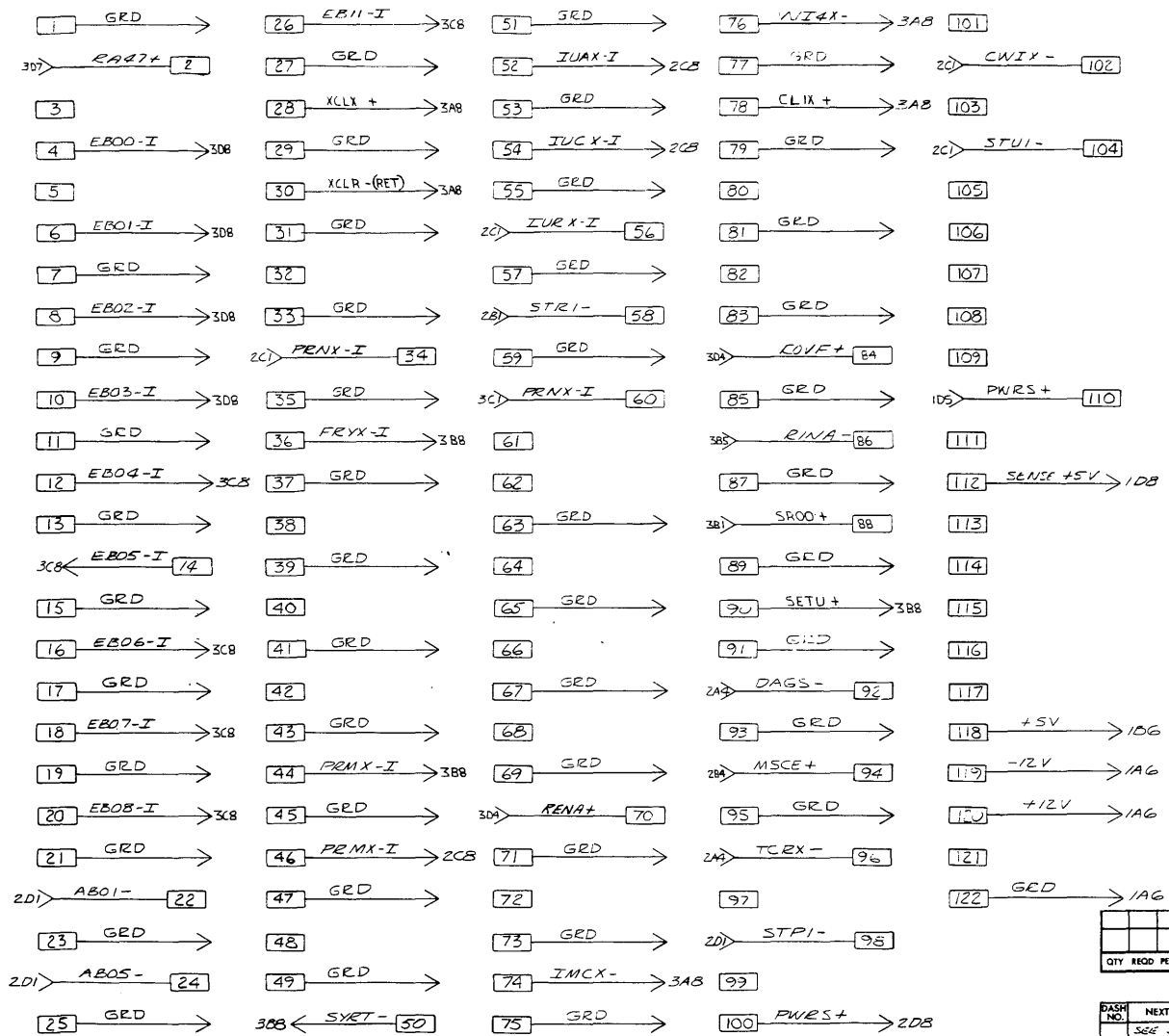
NOTE: UNLESS OTHERWISE SPECIFIED

DIMENSIONS ARE IN INCHES AND AFTER PLATING  
TOLERANCES (UNLESS OTHERWISE SPECIFIED)  
.X ± .1  
.X5 ± .03  
.XXX ± .010  
ANGLES ± 0.5°  
ALL MACHINED SURFACES

DO NOT SCALE DRAWING  
WORK TO DIMENSIONS ONLY

varian data machines  
a varian subsidiary  
LOGIC DIAGRAM  
DM 123-3  
PF/R AND ETC  
6202-13/14

SYN ZONE		REVISION		APPROVED DATE	
		1-MAY BE REWORKED	3-NOW SHOP PRACTICE		
		2-CANNOT BE REWORKED	4-RECORD CHANGE		
		5-PARTS MADE OK			
SEE SHEET ONE					



NOTE: UNLESS OTHERWISE SPECIFIED

QTY		REQD PER ASSY		FIND NO.		PART OR IDENTIFYING NO.		NOMENCLATURE OR DESCRIPTION		MATERIAL OR CODE IDENT		SPECIFICATION	

DIMENSIONS ARE IN INCHES AND AFTER PLATING				DR <i>[Signature]</i>			
CHK	<i>[Signature]</i>	DATE	<i>[Signature]</i>	CHK	<i>[Signature]</i>	DATE	<i>[Signature]</i>
DESIGN	<i>[Signature]</i>	DATE	<i>[Signature]</i>	ENGR	<i>[Signature]</i>	DATE	<i>[Signature]</i>
PROJECT	<i>[Signature]</i>	DATE	<i>[Signature]</i>	REL TO	<i>[Signature]</i>	DATE	<i>[Signature]</i>
X = 1				APPROVED			
XXX ± .016				APPROVED			
ANGLES ± 0.5°				APPROVED			
ALL MACHINED SURFACES				DO NOT SCALE DRAWING			
				WORK TO DIMENSIONS SHOWN			

LIST OF MATERIALS OR PARTS LIST		VARIAN DATA MACHINES	
LOGIC DIAGRAM		a varian subsidiary	
DM 123-3		model 123-3	
PFR AND ETC			
G20A-13/14			
CODE IDENT. NO	21101	SIZE	D
SCALE		95D0135	
		SHEET 4 OF 4	