

VOLTAGE POLARITIES SHOWN ARE FOR MOTORING DA1(+)

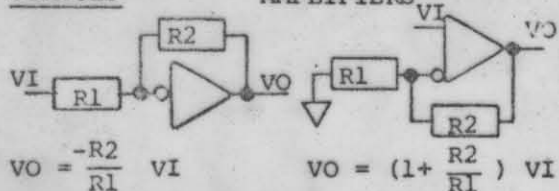
SIGNAL DEFINITIONS AND LOCATIONS

HARDWARE ABBREVIATIONS

MCC MAIN CONTROL CARD
 IFC INTERFACE CARD
 PSC POWER SUPPLY CARD
 SCR THYRISTOR ASSEMBLY
 DGC DIAGNOSTIC CARD
 MFC MOTOR FIELD CONTROL
 MFE MOTOR FIELD EXCITER
 MDR MODIFICATION RACK
 ACC AUXILIARY CONTROL CARD

SYMBOLS

AMPLIFIERS



CASE GROUND

$VO = \text{SIGN} () \times \text{ABSOLUTE VALUE OF } VI$
 STAB ON TERMINAL

TERMINAL AT 2TB, 3TB, 4TB, RTB.
 EX: 9 [2] - 2TB9; X2 [3] - RTB2

TERMINAL AT T.B.'s

POTENTIOMETER ARROWS ON THE CARD
 ELEMENTARY DIAGRAMS INDICATE THE
 WIPER DIRECTION AS THE POTENTIOMETER
 SHAFT IS ROTATED CLOCKWISE TO INCREASE
 FUNCTION.

THESE RESISTORS ARE CRIMPED IN WIRE
 HARNESS.

FUNCTION	USE	LOC	JUMPERS
60HZ	✓	MFC	ZA-ZB (IF USED)
50HZ		MCC	HZA - PHA
IOC-400%	✓		(NONE)
-500%		IFC	I - IHI
-300%		IFC	I - ILO
SR5 - 9v			(NONE)
9 - 20v	✓	MCC	SRH - COM
JOGR 10v			(NONE)
20v		MCC	JH - COM
LT. 3-7sec.	✓		(NONE)
2 - 60sec			332Ω FROM LTI TO COM
VREG			NT-CEMF CC-COM
DC TACHO	✓		(NONE)
AC TACHO		MCC	AT1 - AT2
TACHO FILT		IFC	TC - TC
TACHO V.		IFC	NT-NT1 PT - PT1
24-64vdc		IFC	NT-NT1 PT - PT1
27-71vac		IFC	NT-NT2 PT - PT2
60-160vdc		IFC	NT-NT2 PT - PT2
66-177vac		IFC	NT-NT2 PT - PT2
110-300vdc	✓	IFC	NT-NT3 PT - PT3
120-300vac		IFC	NT-NT3 PT - PT3
G134 G256	✓	IFC	MFC OR MFE
1.7		ME	NONE
1.3		ME	YB - YD
2.8		ME	YA - YB
2.4		ME	YA - YB, YC - YD
5.0		ME	YA - YB, YC - YD
4.0		ME	YA - YC
8.0		ME	YA - YC, YB - YD
13		ME	YA - YC, YB - YD
13		ME	YA - YC, YB - YD
25		ME	YA - YC, YB - YD
L/R < .25S		MFC	QA - QB
INH RUN		DGC	D1-D2 (IF USED)
INH DRV CL		MCC	DC1 - COM
FUSELESS		ACC	CFY - CFX

* CEMF COUNTER EMF (3 16)
 * CFB CURRENT FEEDBACK (3 16)
 CMFA ABSOLUTE VALUE CEMF (3 08)
 CRM CROSSOVER MODIFY (3 11)
 DFP DELAYED FIRING POWER (3 25)
 * DR DRIVER REFERENCE (3 33)
 * EAO ERROR AMP OUTPUT (3 33)
 EST EXTERNAL FLT STOP INPUT (3 14)
 FALT FAULT (3 14)
 * FC FIELD CURRENT (NS26)
 FDR FIELD DIAGNOSTIC REFERENCE (4 08)
 FEA FIELD ECONOMY ADJUST (3 25)
 FF FIELD FAULT (2 28)
 IABS MOTOR CURRENT ABSOLUTE (3 09)
 ILA CURRENT LIMIT ADJUST (3 23)
 ILET CURRENT SIGNAL FOR METER (3 10)
 * IPU INITIAL PULSE (3 20)
 * LR LOCAL REF. FROM DGC (3 33)
 * JOG JOG SWITCH INPUT (3 23)
 * JOGR JOG REFERENCE INPUT (3 31)
 * MAC MAX/MA CONTROL SIGNAL (3 20)
 MSW MODE SWITCH (3 30)
 * OSC OSCILLATOR (3 17)
 * PCR PHASE CONTROL REF. (3 26)
 * PRE DRIVE PRECONDITION (3 21)
 ØSEQ PHASE SEQUENCE (3 14)
 RERR REGULATOR ERROR (3 27)
 RIJ INTEGRATOR SUMMING JUNCTION (3 27)
 RJ REGULATOR SUMMING JUNCTION (3 31)
 RRA REGULATOR RESPONSE ADJUST (3 30)
 RSET RESET (3 16)
 * RTR READY TO RUN (3 16)
 * RUN RUN SWITCH INPUT (3 21)
 * SA-C PHASE SYN OUTPUT (3 16)
 * SFB SPEED FEEDBACK (3 20)
 SMET SPEED SIGNAL FOR METER (3 12)
 * SR SYSTEM REFERENCE INPUT (3 29)
 * SYS SYSTEM FAULT TRIP (3 13)
 * TA OUTPUT FOR TACHO TRIP ADJUST (3 20)
 TF TACHO FAULT (NS28)
 * TFB TACHOMETER FEEDBACK (3 20)
 TFR AC TACHO FREQUENCY OUTPUT (3 13)
 * TR TIMED REFERENCE (3 33)
 * VFB VOLTAGE FEEDBACK (3 19)
 * WFR WEAK FIELD REFERENCE (3 20)

(* - TEST POINT ON DOOR FRONT)

MAPPING SYSTEM

(NS/PS/TS) PS - PAST SHEET
 NS - NEXT SHEET
 TS - THIS SHEET

HENCE (PS - 12) DENOTES LOCATION ON PAST SHEET LINE 12. OTHER LOCATIONS ARE
 DENOTED BY SHEET NUMBER AND LINE? E.G. (1A16) SIGNIFIES LOCATION ON SHEET
 1A, LINE 16 ETC.

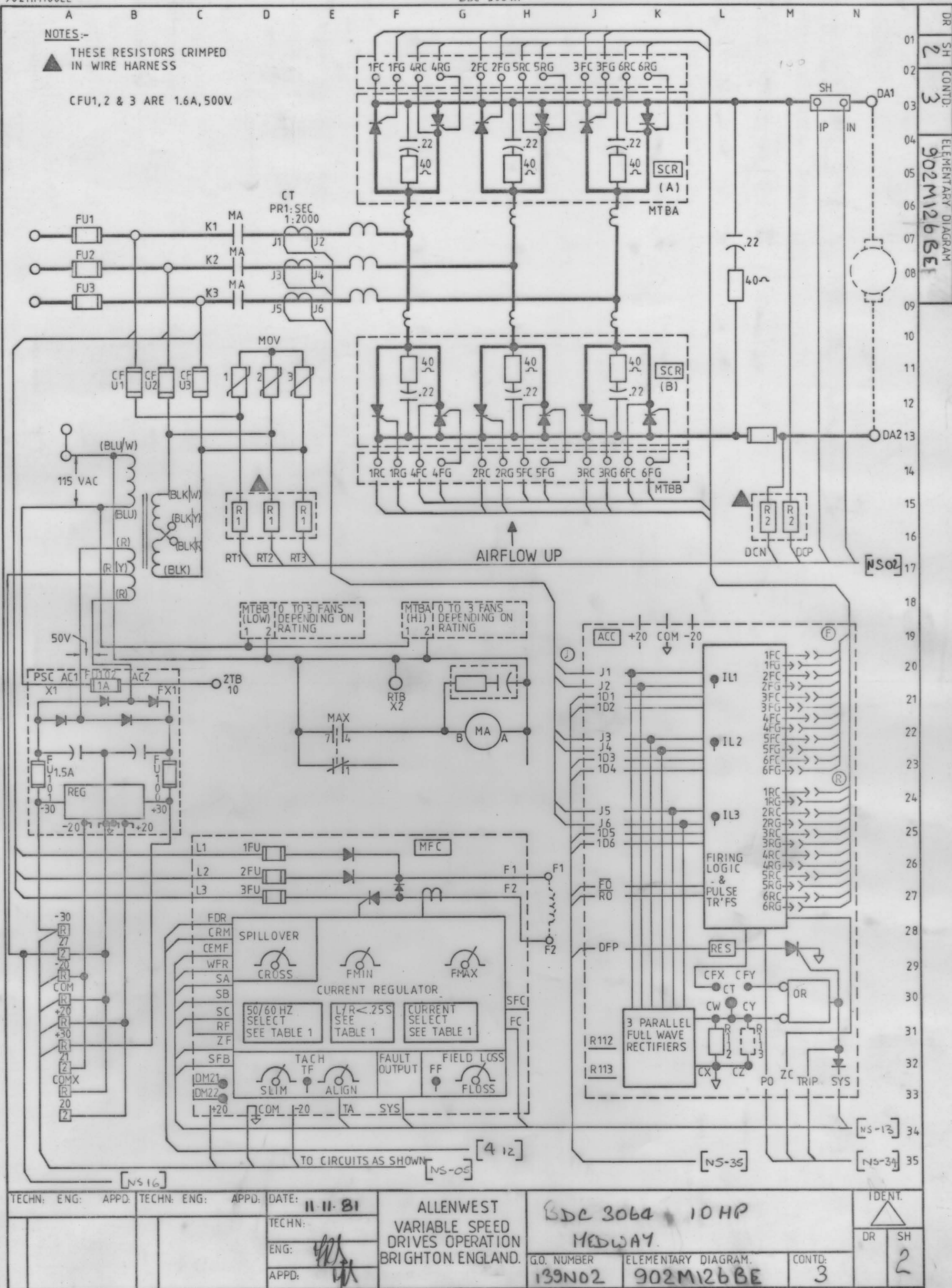
NOTE: FIELD EFFECT TRANSISTOR: THE
 CLOSED/OPEN (I/O) STATE OF THESE
 SWITCHED FOR "PRECONDITION" - "RUN"
 OR JOG" - "DIAGNOSTIC STATIC" -
 "DIAGNOSTIC RUN" IS SHOWN BY A
 FOUR DIGIT WORD WITH STATE SEQUENCE.

TECHN.	ENG.	APPD.	TECHN.	ENG.	APPD.	DATE	11-11-81	10HP 3064R	MEDWAY ELECTRICAL	IDENT	DR	SH
							TECHN.					
							ENG.					
							APPD.					
							GO NUMBER		ELEMENTARY DIAGRAM		CONTD.	
							139N02		902M126BE		2	

NOTES:-

▲ THESE RESISTORS CRIMPED
IN WIRE HARNESS

CFU1,2 & 3 ARE 1.6A, 500V.



TECHN: ENG: APPD: TECHN: ENG: APPD: DATE: 11-11-81

TECHN:

ENG:

APPD:

ALLENWEST
VARIABLE SPEED
DRIVES OPERATION
BRIGHTON, ENGLAND.

BDC 3064 10 HP
MEDWAY

G.O. NUMBER

139N02

ELEMENTARY DIAGRAM.

902M126BE

CONTO:

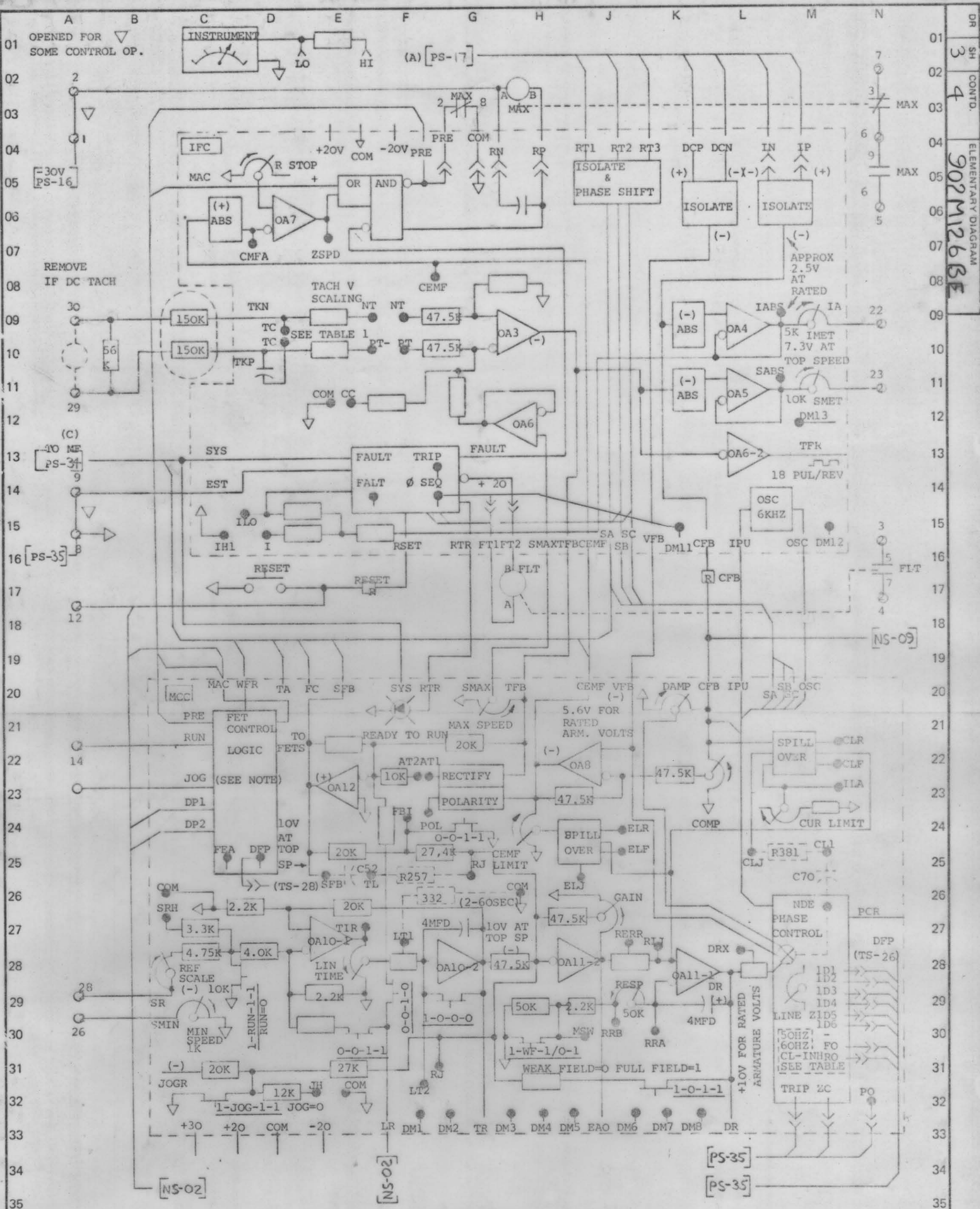
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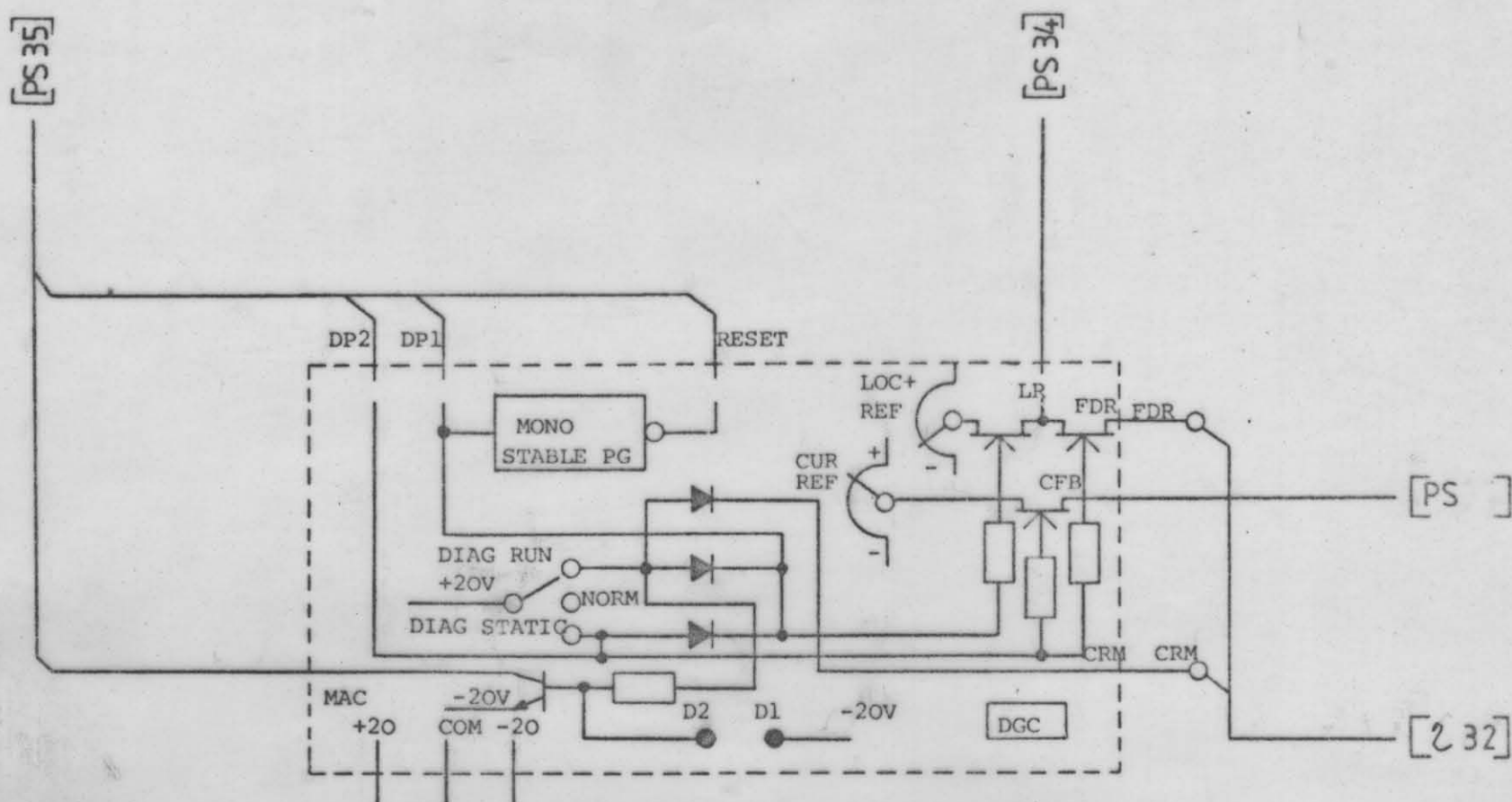
IDENT.

DR

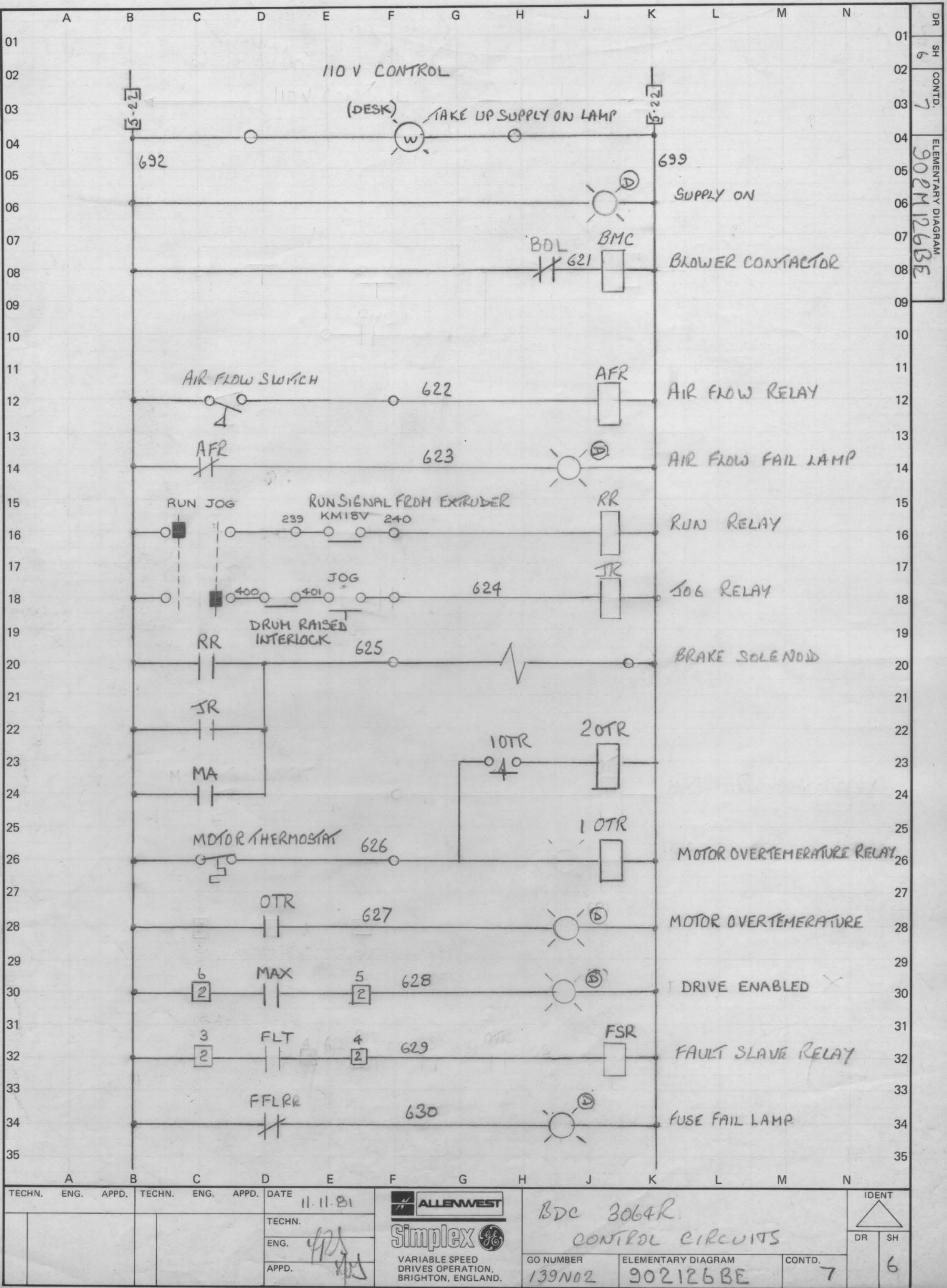
SH

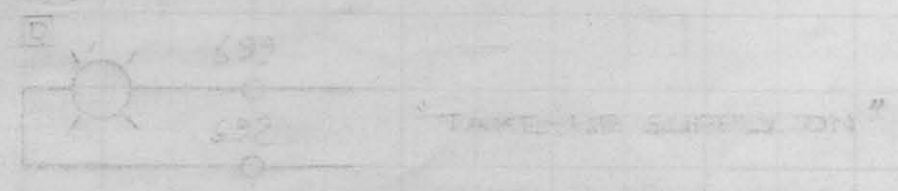
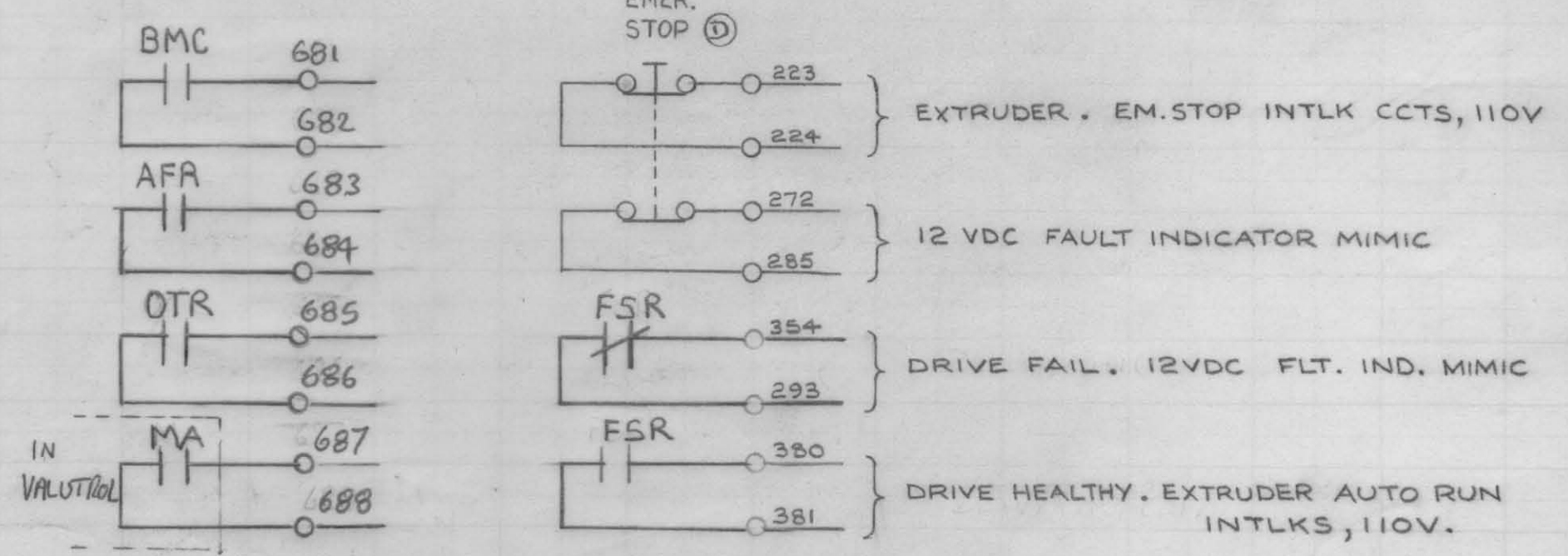
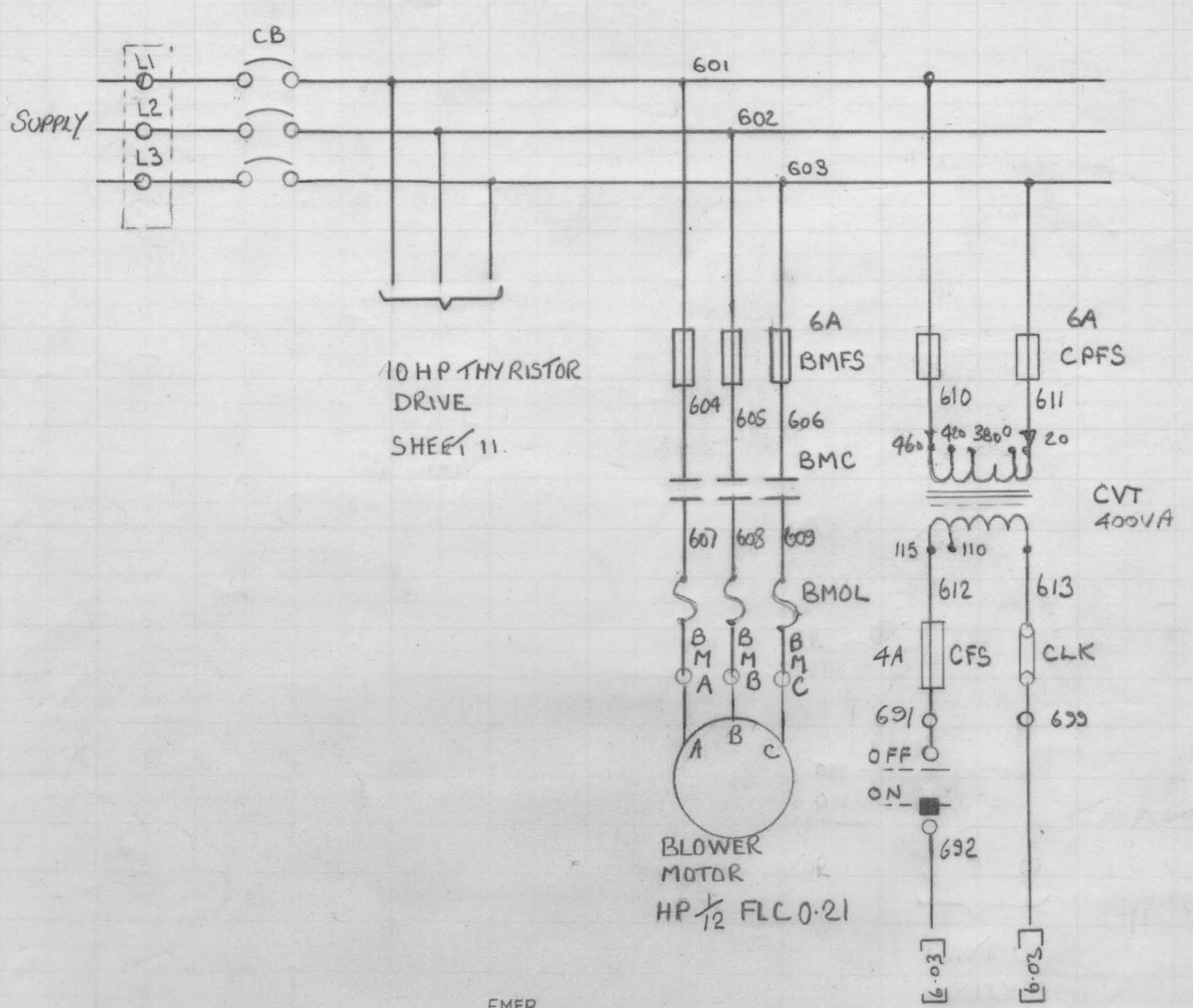
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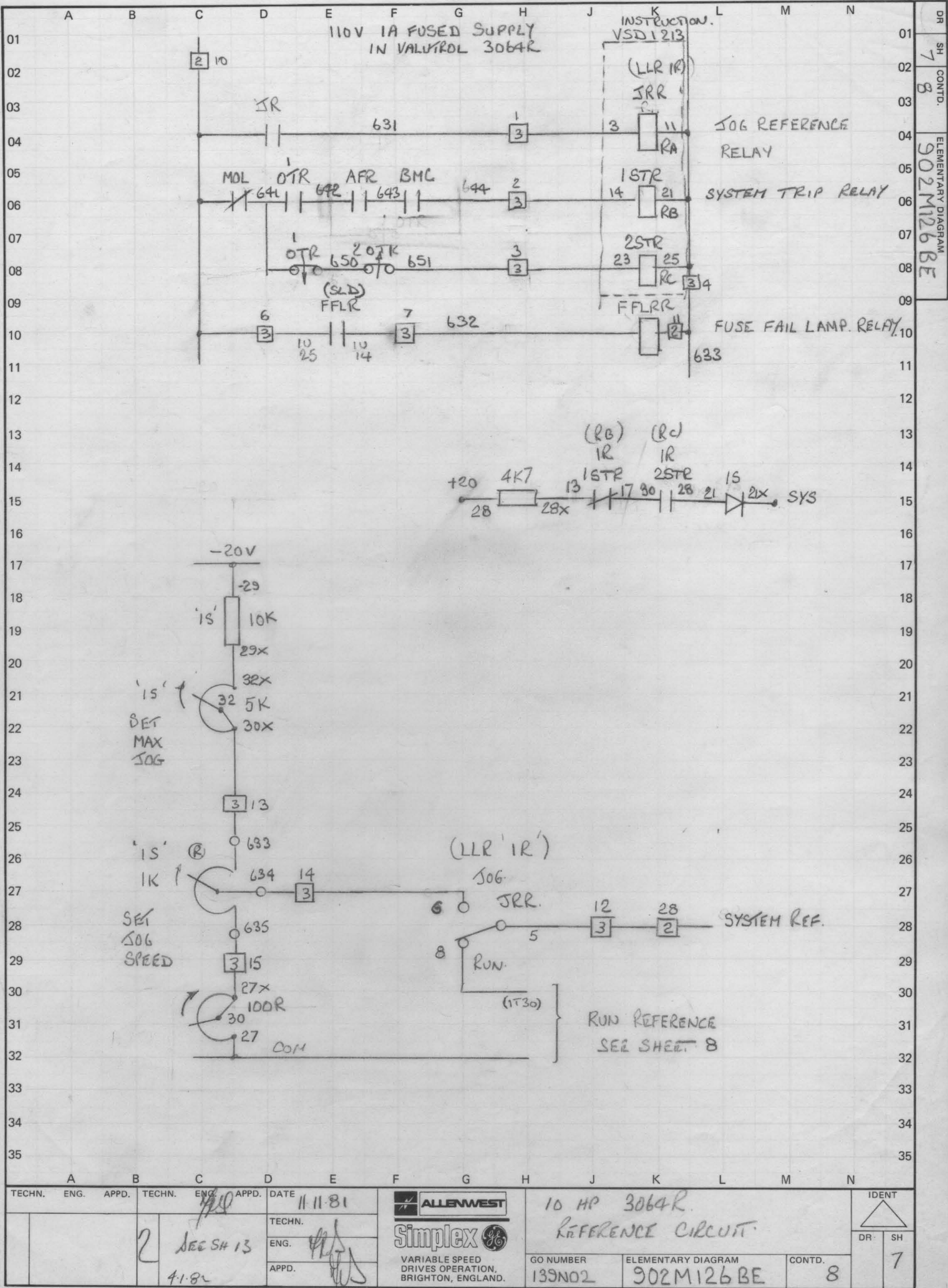


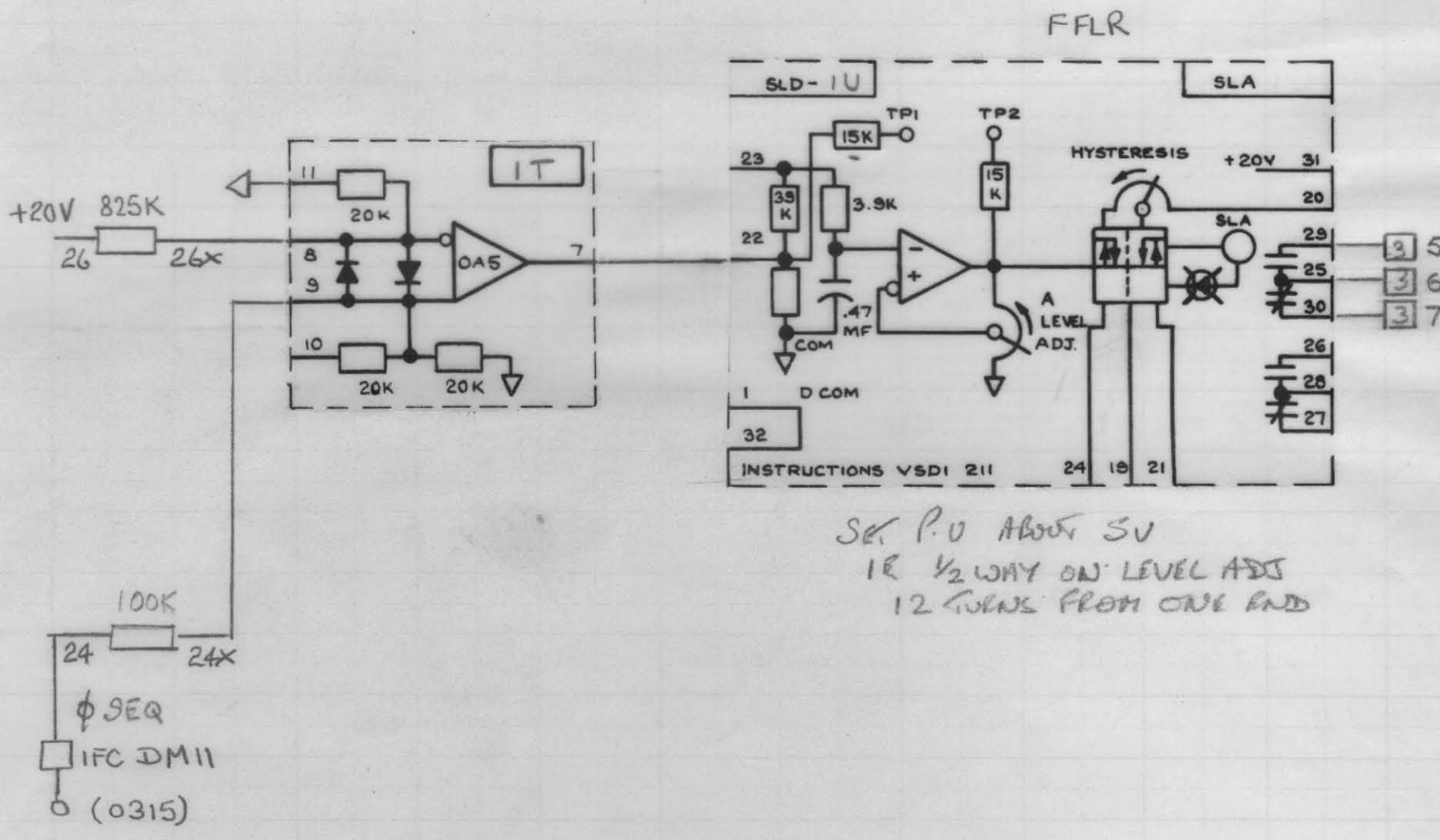
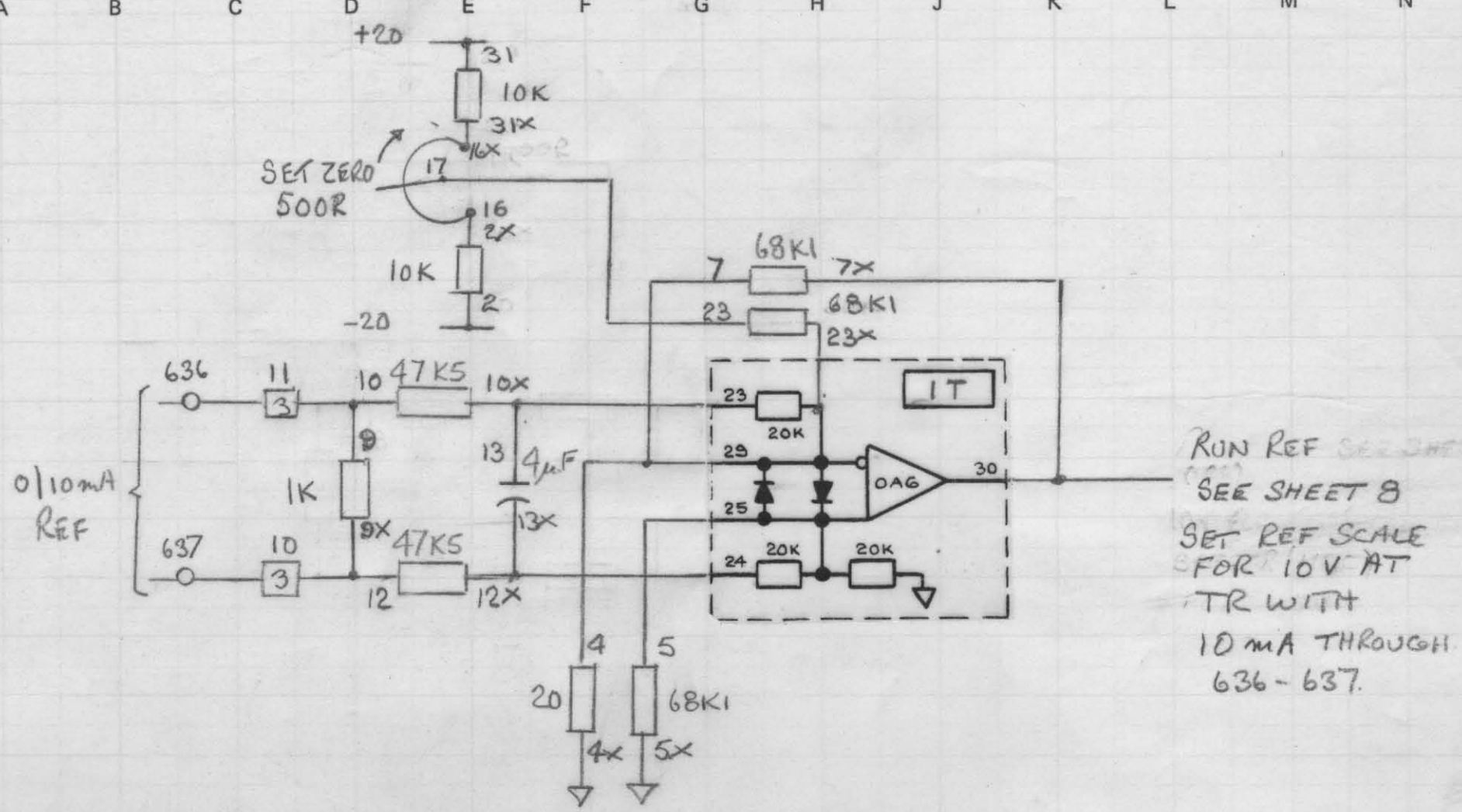
TECHN.			ENG.			APPD.			DATE			BDC 3064R 10 HP			IDENT		
									11.11.81			(DIAGNOSTIC CARD)			DR SH		
									TECHN.			GO NUMBER			ELEMENTARY DIAGRAM		
									ENG.			139N02			902M126 BE		
									APPD.						CONTD.		
															5		

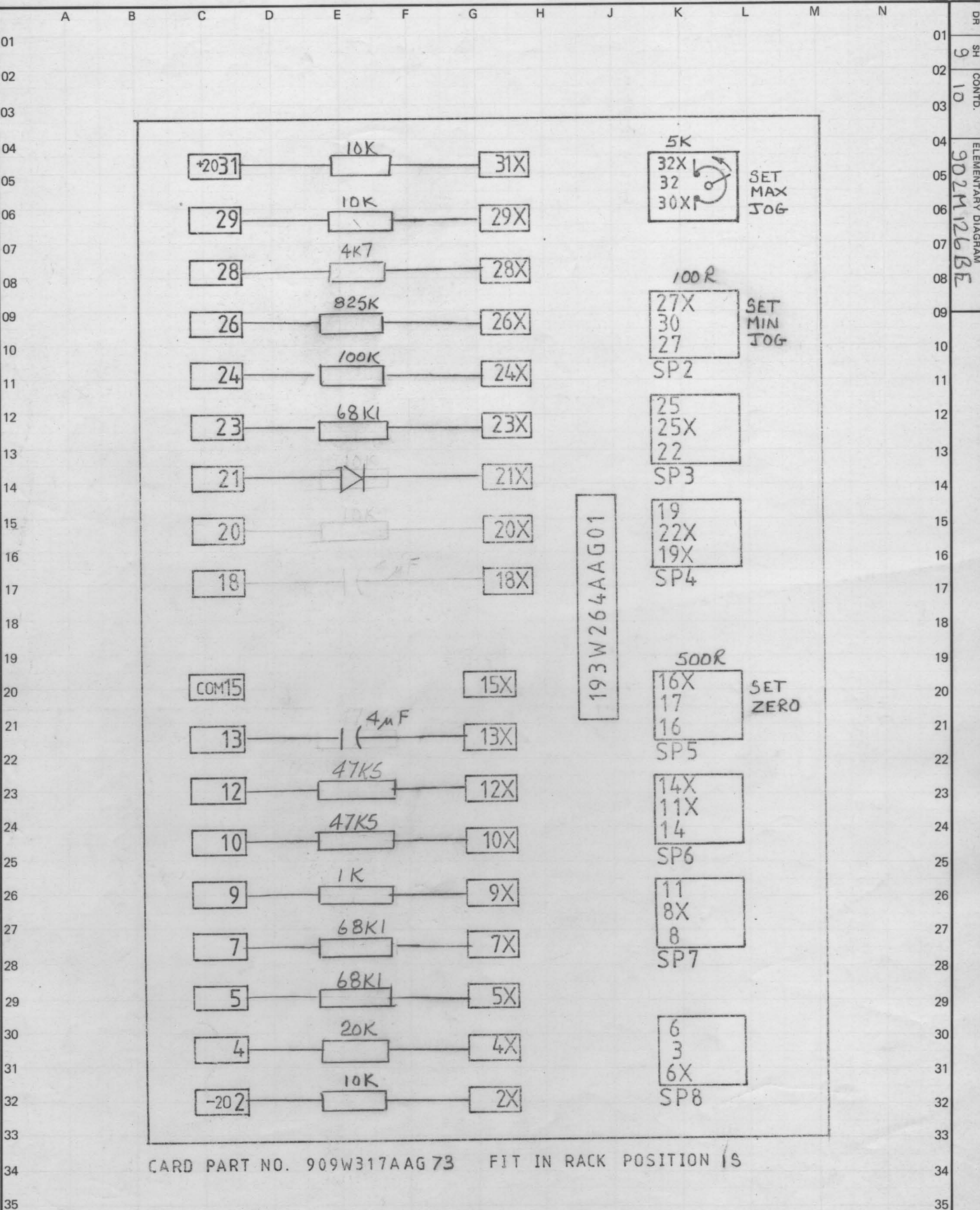




TECHN.	ENG.	APPD.	TECHN.	ENG.	APPD.	DATE	11-11-81				BDC 3064R			IDENT	
							TECHN.				MAIN & CONTROL CIRCUITS			DR SH	
							ENG.	VARIABLE SPEED DRIVES OPERATION, BRIGHTON, ENGLAND.			GO NUMBER	ELEMENTARY DIAGRAM	CONTD.	5	
							APPD.				139ND2	902M126BE	6		







TECHN.	ENG.	APPD.	TECHN.	ENG.	APPD.	DATE	11.11.81			<p>10HP BDC 3064R</p> <p>COMPONENT CARDS</p>	<p>IDENT</p> <p>DR SH</p> <p>9</p>
								<p>VARIABLE SPEED DRIVES OPERATION, BRIGHTON, ENGLAND.</p>		<p>GO NUMBER</p> <p>139N02</p>	<p>ELEMENTARY DIAGRAM</p> <p>902M126BE</p>
								<p>CONTD.</p> <p>10</p>			

Diagram grid with columns A-N and rows 01-11. Contains handwritten labels: LLR, CC, A, SLD.

DR SH CONTD. ELEMENTARY DIAGRAM 902M126BE

ON PRINTED CIRCUIT CARDS USED IN THIS RACK THE LETTERS 'AA' AFTER BASIC CATALOGUE NUMBER INDICATES ORIGINAL DESIGN. SUBSEQUENT DESIGNS WITH THE SAME BASIC NUMBERS AND GROUP NUMBER WITH THE SECOND LETTER CHANGED, SUCH AS: AB, AC, AD, ETC., ARE DIRECTLY INTERCHANGEABLE AND MAY BE SUPPLIED IN PLACE OF THE 'AA' CARDS.

THE PRINTED CIRCUIT CARD SHOULD ALWAYS BE REMOVED WITH THE CARD EXTRACTOR WHICH IS ATTACHED ON TOP OF THE CARD RACK. SOME CARDS CONTAIN PARTS WHICH WILL BE THERMALLY HOT AFTER BEING IN OPERATION. CARE SHOULD BE EXERCISED IN HANDLING ALL CARDS AFTER REMOVAL UNTIL THESE PARTS HAVE COOLED. DO NOT REMOVE OR INSERT CARDS WITH POWER APPLIED.

FRONT VIEW OF 64 PIN RECEPTACLE AS SEEN IN RACK CLOSED POSITION.

SYMBOLS: ● TEST POST ⊕ POT ADJUSTMENT ✕ INDICATING LIGHT

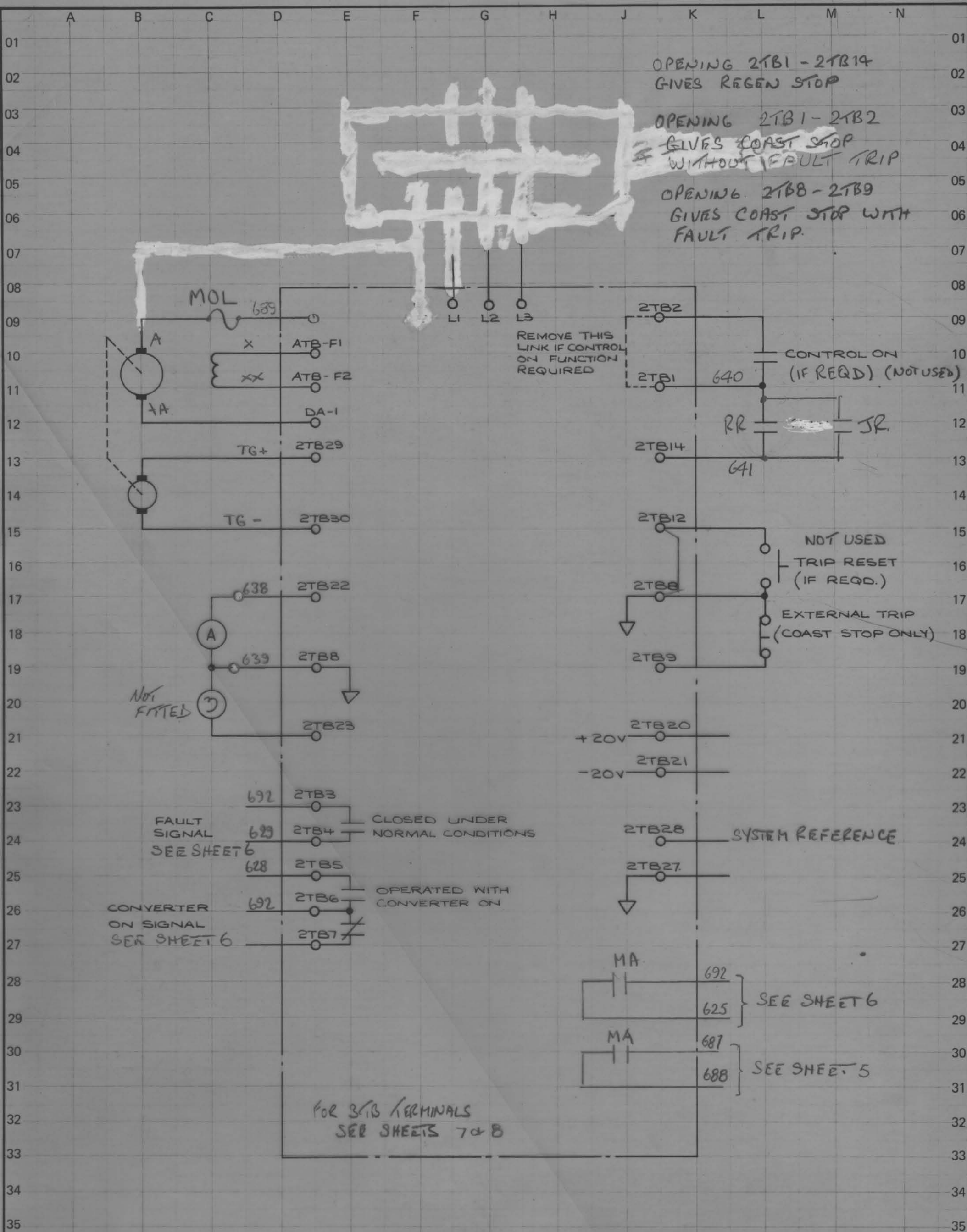
IFC φ SEQ - DM11



32	- 64	32	- 32X
31	- 63	31	- 31X
30	- 62	30	- 30X
29	- 61	29	- 29X
28	- 60	28	- 28X
27	- 59	27	- 27X
26	- 58	26	- 26X
25	- 57	25	- 25X
24	- 56	24	- 24X
23	- 55	23	- 23X
22	- 54	22	- 22X
21	- 53	21	- 21X
20	- 52	20	- 20X
19	- 51	19	- 19X
18	- 50	18	- 18X
17	- 49	17	- 17X
16	- 48	16	- 16X
15	- 47	15	- 15X
14	- 46	14	- 14X
13	- 45	13	- 13X
12	- 44	12	- 12X
11	- 43	11	- 11X
10	- 42	10	- 10X
9	- 41	9	- 9X
8	- 40	8	- 8X
7	- 39	7	- 7X
6	- 38	6	- 6X
5	- 37	5	- 5X
4	- 36	4	- 4X
3	- 35	3	- 3X
2	- 34	2	- 2X
1	- 33	1	- 1X

CARD RACK WIRE JUMPER TABLE			
-20V RAB-	3TB1(SPI1)-1R3	3TB10(SPI10)-1S9X	1T7-1U22
1U2	3TB2(SPI2)-1R14	1S9X-1S12	
1U2X	3TB3(SPI3)-1R23	1S10X-1S13	3TB5(SPI5)-1U29
1T2	3TB4(SPI4)-1R11	1S12X-1S13X	3TB6(SPI6)-1U25
1T2X	1R11-1R21	1S13-1T23	3TB7(SPI7)-1U30
1S2	1R21-1R25	1S13X-1T24	
		1T30-1S7X	
	1S2-1S29	1S7X-1R6	SYs-1S21X
	1S29X-1S32X	1T29-1S7	1S21-1R17
+20V RTB-	1S32-1S30X	1S7-1S4	1R13-1S28X
1U31	3TB13(SPI23)-1S30X	1T25-1S5	1S28-1S31
1U31X	3TB15(SPI25)-1S27X	1S27-1S5X	
1T31	1S27X-1S30	1S5X-1S4X	
1T31X	1S27-1S15		
1S31	3TB14(SPI24)-1R8	1T11-1T15	
	3TB12(SPI22)-1R5		
COM 1U15	1S31X-1S16X	1T31-1S26	
1U15X	1S16-1S2X	1S26X-1T8	
1T15	1S17-1S23	1T9-1S24X	
1T15X	3TB11(SPI21)-1S10	1S24-1FC DM11	3TB6-2TB10
1S15	1S10-1S9		3TB4-2TB11

NOTE: RECEPTACLE PINS MAY BE NUMBERED AS SHOWN IN EITHER SKETCH. (PIN 33 CORRESPONDS TO PIN 1X, 34 TO 2X, ETC.)

TECHN.	ENG.	APPD.	TECHN.	ENG.	APPD.	DATE	11.11.81	 Simplex VARIABLE SPEED DRIVES OPERATION, BRIGHTON, ENGLAND.	Bnc 3064R RACK LAYOUT		GO NUMBER 139N02	ELEMENTARY DIAGRAM 902M126BE	CONTD. 11	IDENT DR SH 10



TECHN.	ENG.	APPD.	TECHN.	ENG.	APPD.	DATE	11/1/81	 Simplex VARIABLE SPEED DRIVES OPERATION, BRIGHTON, ENGLAND.	10HP BDC 3064R VALVROL CONNECTIONS		IDENT	 DR SH 11	
						TECHN.			GO NUMBER	139N02	ELEMENTARY DIAGRAM		902M126BE
						ENG.					CONTD.		12
						APPD.							