

A B C D E F G H J K L M N

DR

SH

CONTO.

ELEMENTARY DIAGRAM

902M126XX

VOLTAGE POLARITIES SHOWN ARE FOR MOTORING DA1(+)

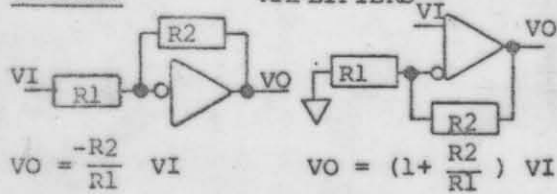
SIGNAL DEFINITIONS AND LOCATIONS

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

VI () VO
 ABS
 STAB ON TERMINAL

TERMINAL AT 2TB, 3TB, 4TB, RTB.
 EX: 9 [2] - 2TB9; X2 [R] - 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	X	MFC	ZA-ZB (IF USED)
50HZ		MCC	HZA - PHA
IOC-400%	X		(NONE)
-500%		IFC	I - IHI
-300%		IFC	I - ILO
SR5 - 9v			(NONE)
9 - 20v	X	MCC	SRH - COM
JOGR 10v			(NONE)
20v		MCC	JH - COM
LT.3-7sec.			(NONE)
2 - 60sec	X		332Ω FROM LTI TO COM
VREG			NT-CEMF CC-COM
DC TACHO			(NONE)
AC TACHO	X	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	X	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
1.8 1.7		MF	NONE
1.3 2.8		MF	YB - YD
2.4 5.0		MF	YA - YB
4.0 8.0	X	MF	YA-YB, YC-YD
7.0 13		MF	YA - YC
13 25		MF	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
15% dev ch		MCC	DCX - DCY

* CEMF COUNTER EMF (316)
 * CFB CURRENT FEEDBACK (316)
 CMFA ABSOLUTE VALUE CEMF (308)
 CRM CROSSOVER MODIFY (311)
 DFP DELAYED FIRING POWER (325)
 * DR DRIVER REFERENCE (333)
 * EAO ERROR AMP OUTPUT (333)
 EST EXTERNAL FLT STOP INPUT (314)
 FALT FAULT (314)
 * FC FIELD CURRENT (NS26)
 FDR FIELD DIAGNOSTIC REFERENCE (408)
 FEA FIELD ECONOMY ADJUST (325)
 FF FIELD FAULT (328)
 IABS MOTOR CURRENT ABSOLUTE (309)
 ILA CURRENT LIMIT ADJUST (323)
 IMET CURRENT SIGNAL FOR METER (310)
 * IPU INITIAL PULSE (320)
 * LR LOCAL REF. FROM DGC (333)
 * JOG JOG SWITCH INPUT (323)
 * JOGR JOG REFERENCE INPUT (331)
 * MAC MAX/MA CONTROL SIGNAL (320)
 MSW MODE SWITCH (330)
 * OSC OSCILLATOR (317)
 * PCR PHASE CONTROL REF. (326)
 * PRE DRIVE PRECONDITION (321)
 ØSEQ PHASE SEQUENCE (314)
 RERR REGULATOR ERROR (327)
 RIJ INTEGRATOR SUMMING JUNCTION (327)
 RJ REGULATOR SUMMING JUNCTION (331)
 RRA REGULATOR RESPONSE ADJUST (330)
 RSET RESET (316)
 * RTR READY TO RUN (316)
 * RUN RUN SWITCH INPUT (321)
 * SA-C PHASE SYN OUTPUT (316)
 * SFB SPEED FEEDBACK (320)
 SMET SPEED SIGNAL FOR METER (312)
 * SR SYSTEM REFERENCE INPUT (329)
 * SYS SYSTEM FAULT TRIP (313)
 * TA OUTPUT FOR TACHO TRIP ADJUST (320)
 TF TACHO FAULT (NS28)
 * TFB TACHOMETER FEEDBACK (320)
 TFR AC TACHO FREQUENCY OUTPUT (313)
 * TR TIMED REFERENCE (333)
 * VFB VOLTAGE FEEDBACK (319)
 * WFR WEAK FIELD REFERENCE (320)

(* - TEST POINT ON DOOR FRONT)

MAPPING SYSTEM

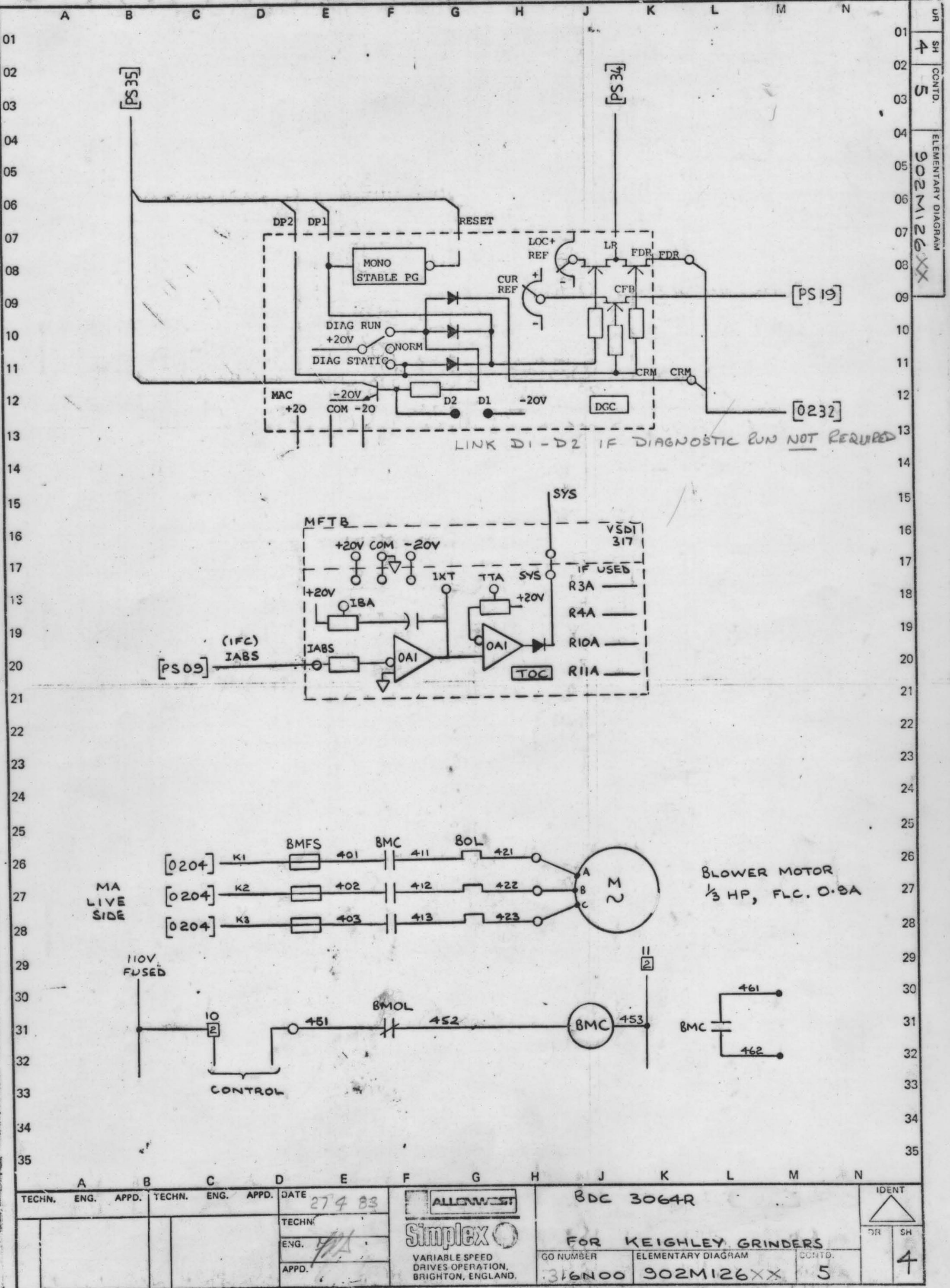
(NS/PS/TS) PS - PAST SHEET
 NS - NEXT SHEET
 TS - THIS SHEET

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.

SIMPLIFIED 3064R SCHEMATIC SEE 906P118CD

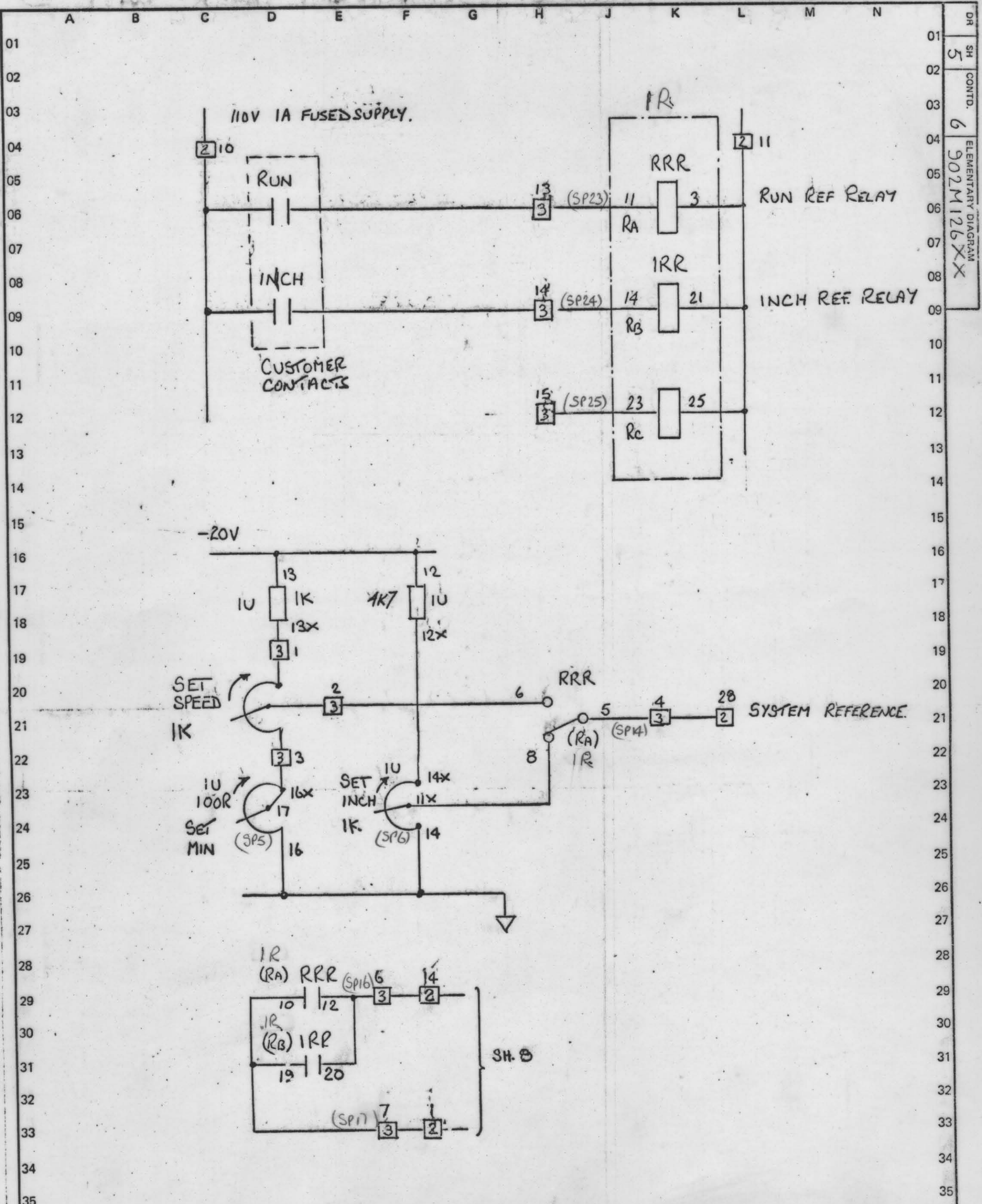
TECHN.	ENG.	APPD.	TECHN.	ENG.	APPD.	DATE	27 4 83	 Simplex VARIABLE SPEED DRIVES OPERATION, BRIGHTON, ENGLAND.	BDC 3064R 100 HP		IDENT		
						TECHN.			(KEIGHLEY GRINDERS)		DR	SH	
						ENG.			CO NUMBER	316N00	ELEMENTARY DIAGRAM	902M126XX	CONTO.
						APPD.							



DR SH CONTD. ELEMENTARY DIAGRAM 902M126XX

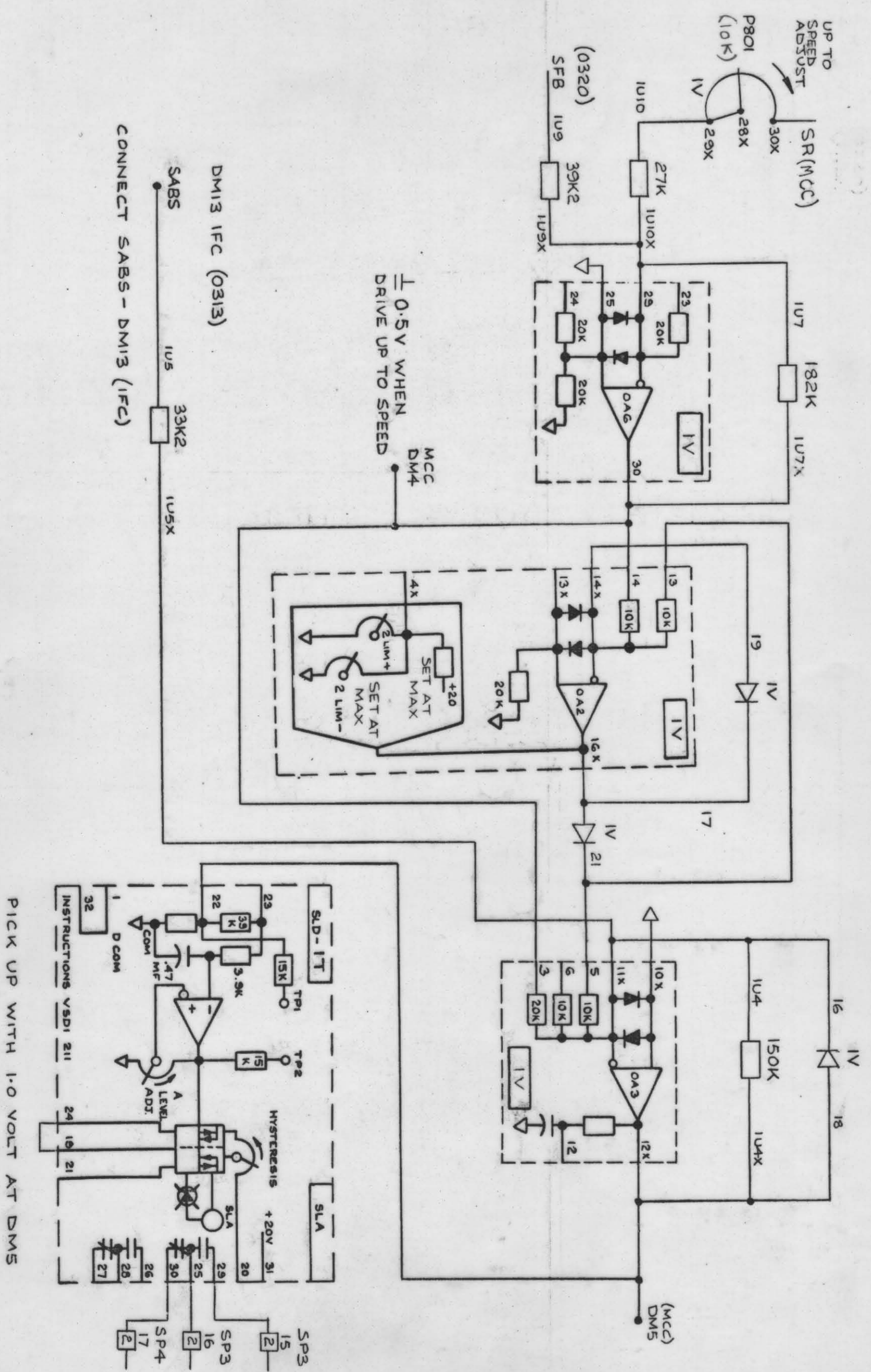
TECHN.	ENG.	APPD.	TECHN.	ENG.	APPD.	DATE	27 4 83	 VARIABLE SPEED DRIVES OPERATION, BRIGHTON, ENGLAND.	BDC 3064R			FOR KEIGHLEY GRINDERS		IDENT	
						TECHN.			GO NUMBER	316N00	ELEMENTARY DIAGRAM	902M126XX	CONTO.	4	
						ENG.								OR	SH
						APPD.									

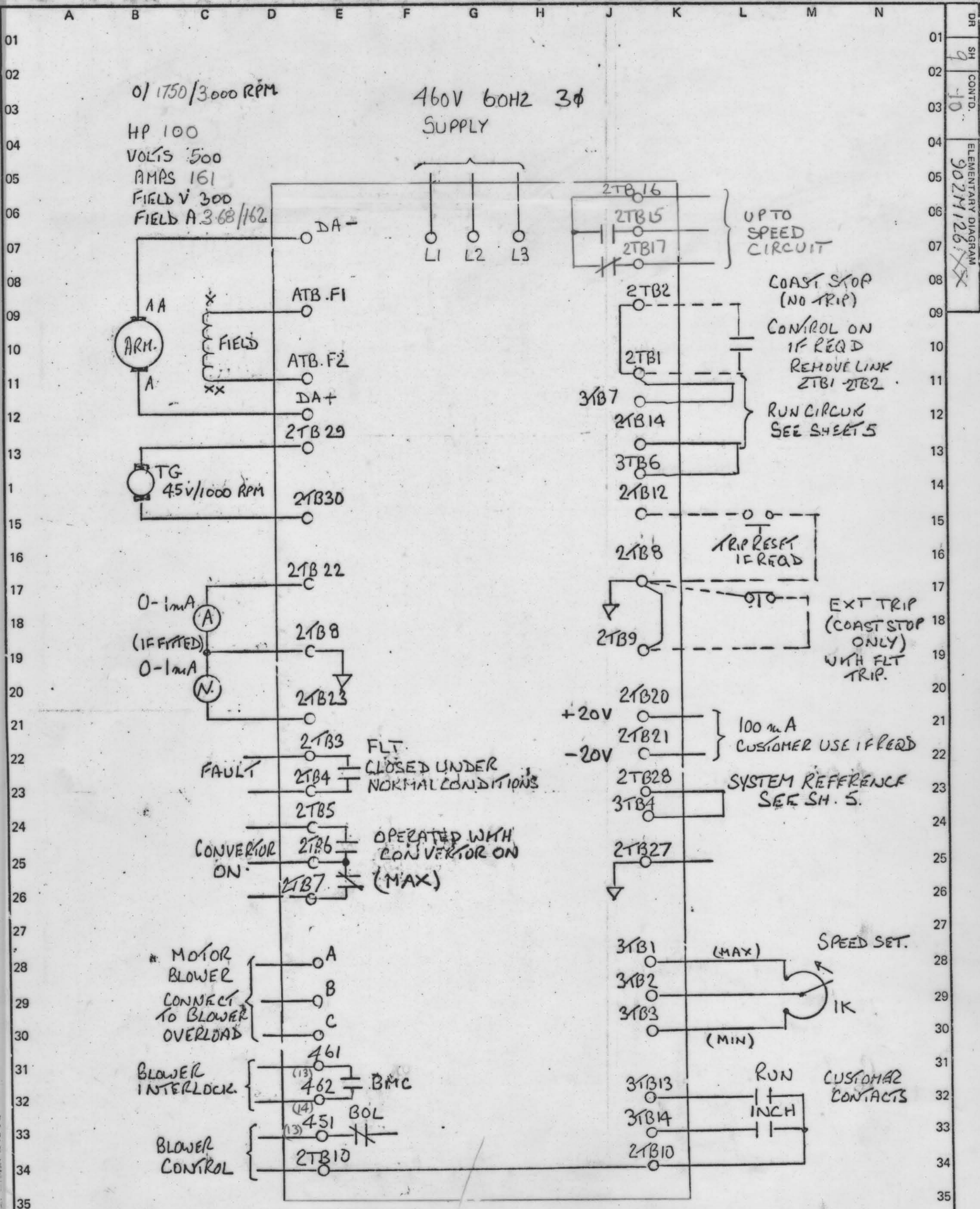
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DR SH CONTD. 6 902M126XX ELEMENTARY DIAGRAM

TECHN. ENG. APPD.		TECHN. ENG. APPD.		DATE 27-4-83	 Simplex VARIABLE SPEED DRIVES OPERATION, BRIGHTON, ENGLAND.	BDC 3064R		IDENT	
						REFERENCE CIRCUITS		DR SH	
						GO NUMBER 316N00		ELEMENTARY DIAGRAM 902M126XX	
						CONTD. 6		5	





DR SH CONTD. ELEMENTARY DIAGRAM 902M126 XX

TECHN.	ENG.	APPD.	TECHN.	ENG.	APPD.	DATE	27.4.83	 Simplex VARIABLE SPEED DRIVES OPERATION, BRIGHTON, ENGLAND.	BDC 3064R 25HP DRIVE EXT CONNECTIONS (KEIGHLEY GRINDERS)			IDENT DR SH 9		
						TECHN.			GO NUMBER	316N00	ELEMENTARY DIAGRAM	902M126 XX	CONTD.	10
						ENG.								
						APPD.								

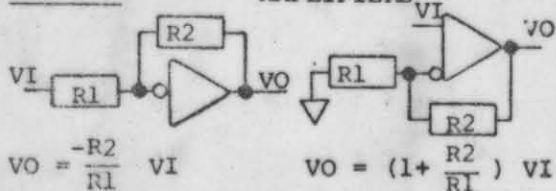
VOLTAGE POLARITIES SHOWN ARE FOR MOTORING DA1(+)

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 = SIGN () X ABSOLUTE VALUE OF VI

STAB ON TERMINAL

TERMINAL AT 2TB, 3TB, 4TB, RTB.
EX: 9 [2] - 2TB9; X2 [R] - RTBX2

TERMINAL AT T.B.'s

POTENTIOMETER ARROWS ON THE CARD
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FUNCTION.THESE RESISTORS ARE CRIMPED IN WIRE
HARNES.

FUNCTION	USE	LOC	JUMPERS
60HZ		MFC	ZA-ZB (IF USED)
50HZ	X	MCC	HZA - PHA
I/O-400%	X		(NONE)
-500%		IFC	I - IHI
-300%		IFC	I - ILO
SR5 - 9v			(NONE)
9 - 20v	X	MCC	SRH - COM
JOGR 10v			(NONE)
20v		MCC	JH - COM
LT.3-7sec.	X		(NONE)
2 - 60sec			332Ω FROM LTI TO COM
VREG			NT-CEMF CC-COM
DC TACHO	X		(NONE)
AC TACHO		MCC	AT1 - AT2
TACHO FILT		IFC	TC - TC
TACHO V.			
24-64vdc		IFC	NT-NT1 PT - PT1
27-71vac		IFC	NT-NT1 PT - PT1
60-160vdc		IFC	NT-NT2 PT - PT2
66-177vac		IFC	NT-NT2 PT - PT2
110-300vdc	X	IFC	NT-NT3 PT - PT3
120-300vac		IFC	NT-NT3 PT - PT3
G134 G256		IFC	MFC OR MFE
1.3 1.7		MF	NONE
1.3 2.8		MF	YB - YD
2.4 5.0		MF	YA - YB
4.0 8.0	X	MF	YA-YB, YC-YD
7.0 13		MF	YA - YC
13 25		MF	YA-YC, YB-YD
L/R < .25S	X	MFC	QA - QB
INH RUN		DGC	D1-D2 (IF USED)
200% DRV CL	X	MCC	DCX - DCY
FUSELESS		ACC	CFY - CFX

SIGNAL DEFINITIONS AND LOCATIONS

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

(* - TEST POINT ON DOOR FRONT)

MAPPING SYSTEM

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

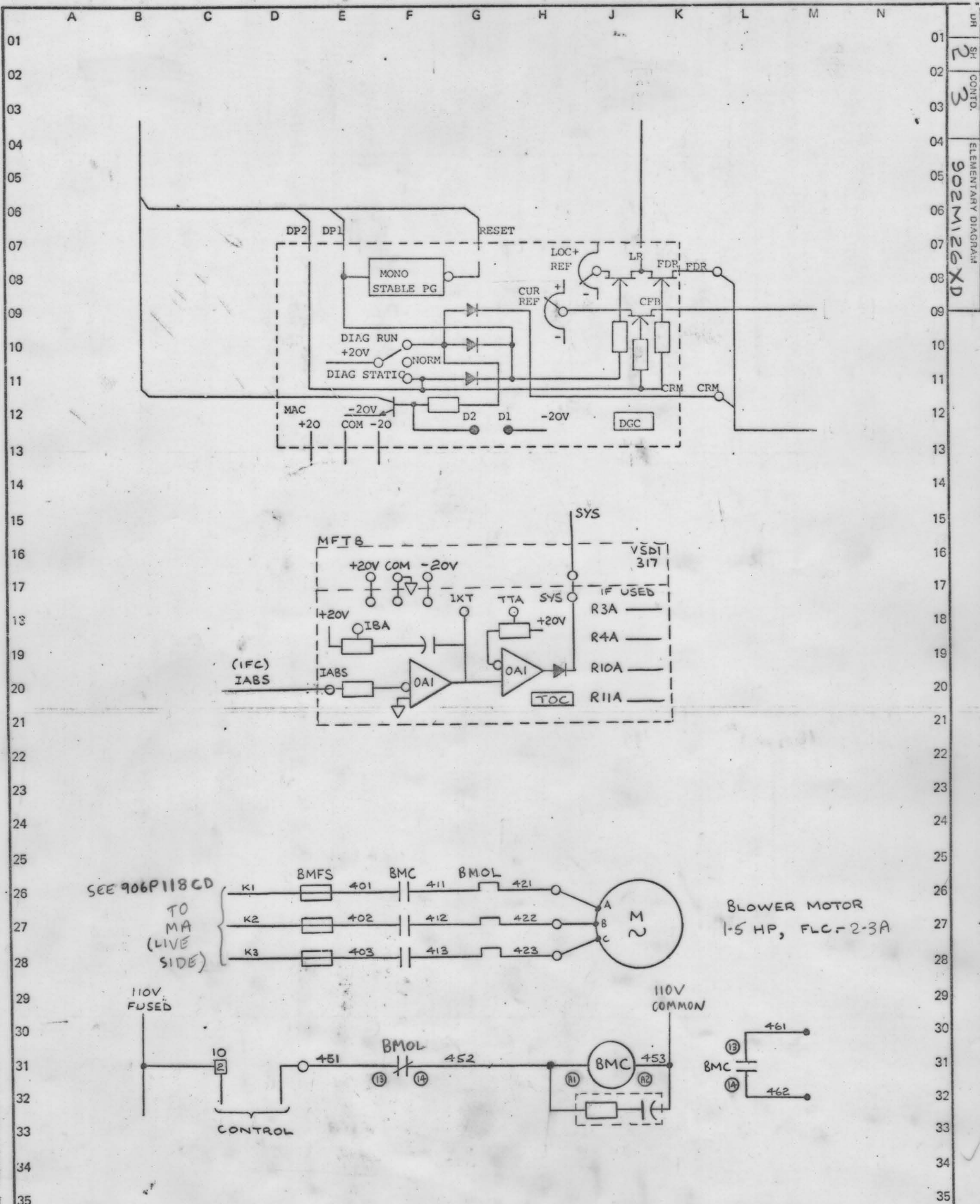
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NOTE: FIELD EFFECT TRANSISTOR: THE
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FOUR DIGIT WORD WITH STATE SEQUENCE.

FOR SIMPLIFIED STD. THYRISTOR DRIVE SCHEMATIC DIA.

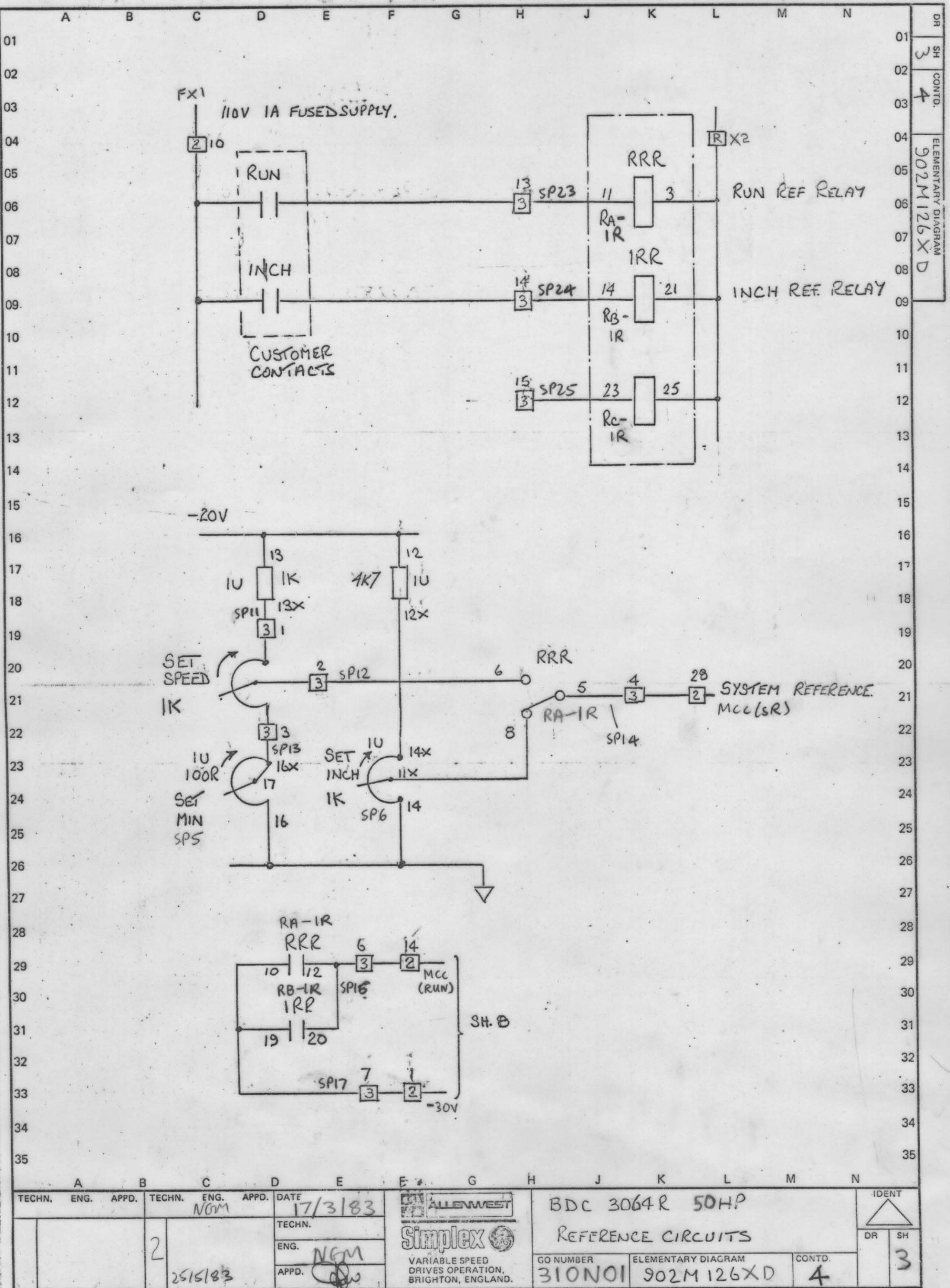
SEE 906P118CD

TECHN.	ENG.	APPD.	TECHN.	ENG.	APPD.	DATE	ALLEN WEST		BDC 3064R 50HP		IDENT
						17/3/83	Simplex		KEIGHLEY GRINDERS		DR
							VARIABLE SPEED DRIVES OPERATION, BRIGHTON, ENGLAND		GO NUMBER 310N01		SH
									ELEMENTARY DIAGRAM 902M126XD		1
									CONTO 2		



TECHN.	ENG.	APPD.	TECHN.	ENG.	APPD.	DATE	BDC 3064R 50 HP			IDENT	
				NGM		17/3/83	FOR KEIGHLEY GRINDERS			OR SH	
			2				GO NUMBER	ELEMENTARY DIAGRAM	CONTD.	2	
			25/5/83				310N01	902M126XD	3		

Allen West
 Simplex
 VARIABLE SPEED
 DRIVES OPERATION,
 BRIGHTON, ENGLAND.



DR SH CONTD. ELEMENTARY DIAGRAM 902M126XD

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TECHN.	ENG.	APPD.	TECHN.	ENG.	APPD.	DATE	17/3/83	TECHN.	ENG.	APPD.	DATE	17/3/83	TECHN.	ENG.	APPD.	DATE	17/3/83	TECHN.	ENG.	APPD.	DATE	17/3/83
						NGM																
						2																
						25/5/83																
						NGM																
						NGM																
						NGM																

Allenwest

Simplex

VARIABLE SPEED DRIVES OPERATION, BRIGHTON, ENGLAND.

BDC 3064R 50HP

REFERENCE CIRCUITS

GO NUMBER 310N01

ELEMENTARY DIAGRAM 902M126XD

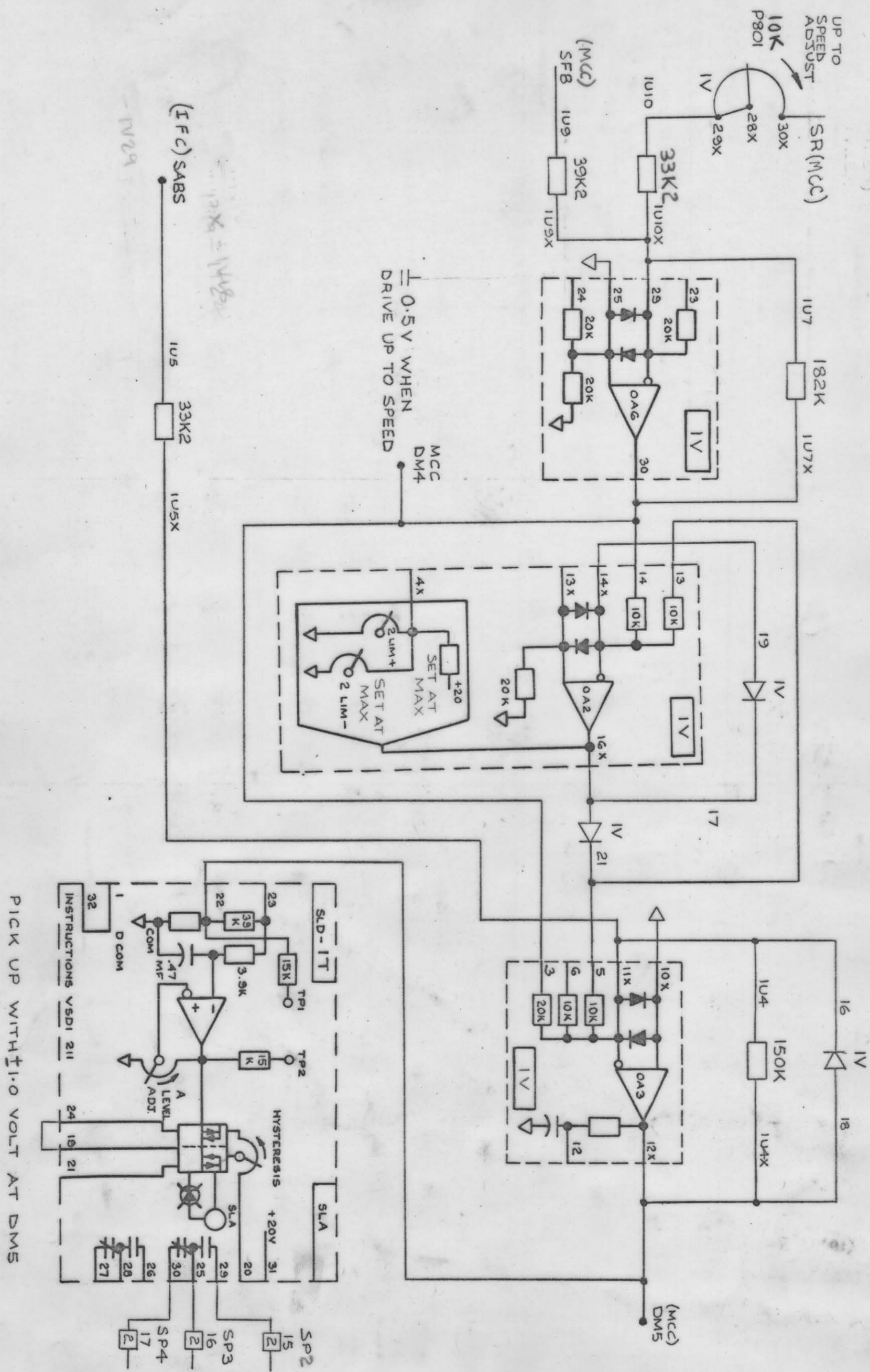
CONTD. 4

IDENT

DR SH

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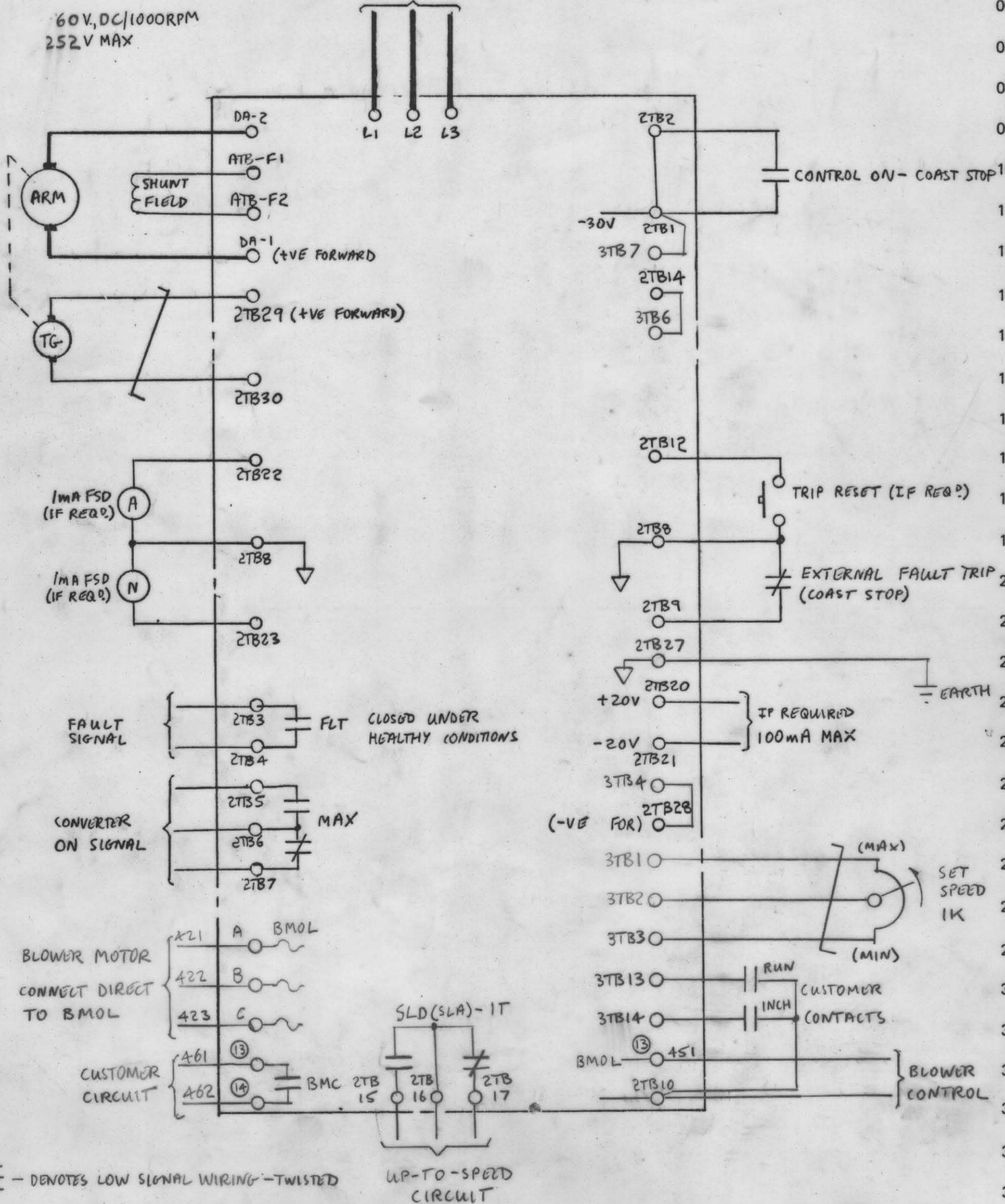
MOTOR DATA

HP — 50/50
 RPM — 2500/4200
 V_A — 400/400
 I_A — 104/104
 V_F — 240
 I_F — 2.8/1.3

TACHO

60V, DC/1000RPM
 252V MAX

SUPPLY
 400/440V, 50HZ, 3 ϕ



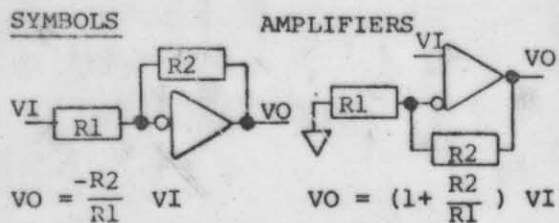
VOLTAGE POLARITIES SHOWN ARE FOR MOTORING DAI(+)

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SYMBOLS



CASE GROUND



VO = SIGN () X ABSOLUTE VALUE OF VI

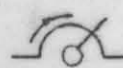
STAB ON TERMINAL



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 EX: 9 [2] - 2TB9; X2 [2] - RTBX2



TERMINAL AT T.B.'s



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JOGR 10v			(NONE)
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L/R < .25S		MFC	QA - QB
INH RUN		DGC	D1-D2 (IF USED)
INH DRV CL		MCC	DC1 - COM
FUSELESS		ACC	CFY - CFX

SEE NOTE

* CEMF COUNTER EMF (0316)
 * CFB CURRENT FEEDBACK (0316)
 CMFA ABSOLUTE VALUE CEMF (0308)
 CRM CROSSOVER MODIFY (0311)
 DFP DELAYED FIRING POWER (0325)
 * DR DRIVER REFERENCE (0333)
 * EAO ERROR AMP OUTPUT (0333)
 EST EXTERNAL FLT STOP INPUT (0314)
 FALT FAULT (0314)
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 * IPU INITIAL PULSE (0320)
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 * JOG JOG SWITCH INPUT (0323)
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 MSW MODE SWITCH (0330)
 * OSC OSCILLATOR (0317)
 * PCR PHASE CONTROL REF. (0326)
 * PRE DRIVE PRECONDITION (0321)
 ØSEQ PHASE SEQUENCE (0314)
 RERR REGULATOR ERROR (0327)
 RIJ INTEGRATOR SUMMING JUNCTION (0327)
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 RRA REGULATOR RESPONSE ADJUST (0330)
 RSET RESET (0316)
 * RTR READY TO RUN (0316)
 * RUN RUN SWITCH INPUT (0321)
 * SA-C PHASE SYN OUTPUT (0316)
 * SFB SPEED FEEDBACK (0320)
 SMET SPEED SIGNAL FOR METER (0312)
 * SR SYSTEM REFERENCE INPUT (0329)
 * SYS SYSTEM FAULT TRIP (0313)
 * TA OUTPUT FOR TACHO TRIP ADJUST (0320)
 TF TACHO FAULT (NS28)
 * TFB TACHOMETER FEEDBACK (0320)
 TFR AC TACHO FREQUENCY OUTPUT (0313)
 * TR TIMED REFERENCE (0333)
 * VFB VOLTAGE FEEDBACK (0319)
 * WFR WEAK FIELD REFERENCE (0320)

(* - TEST POINT ON DOOR FRONT)

MAPPING SYSTEM

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 TS - THIS SHEET

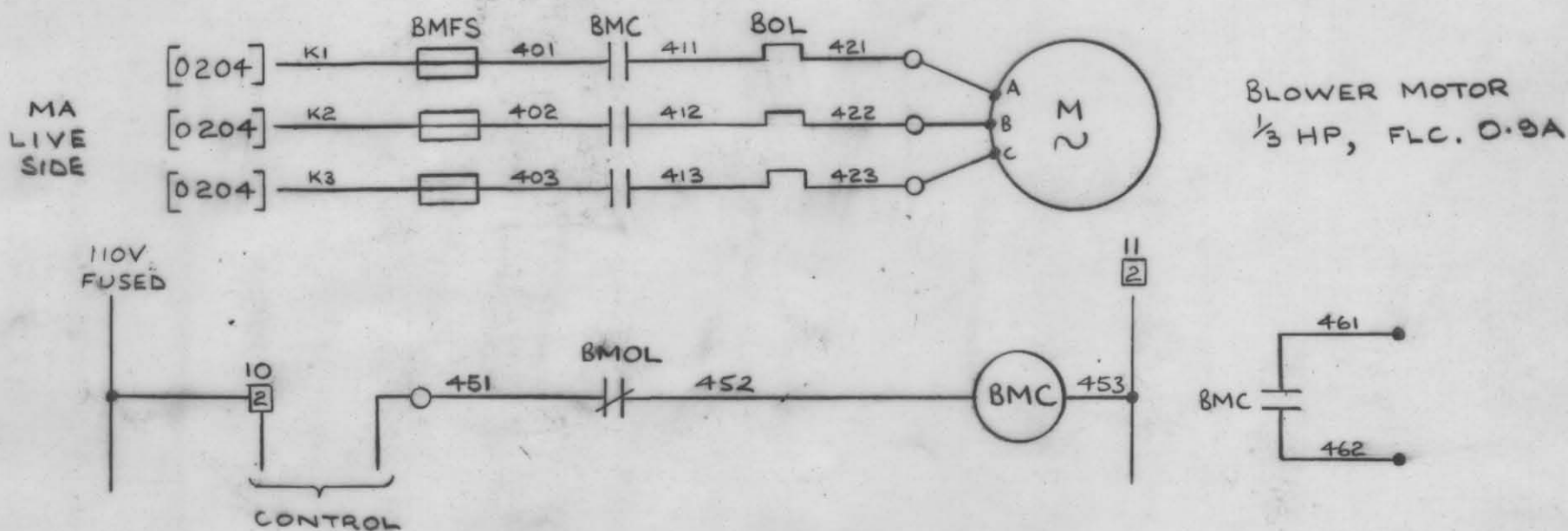
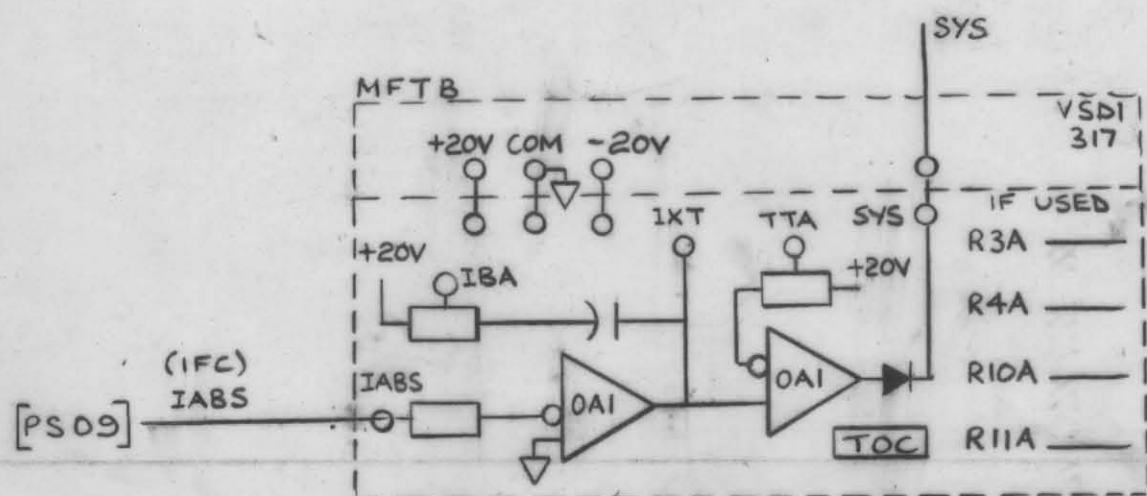
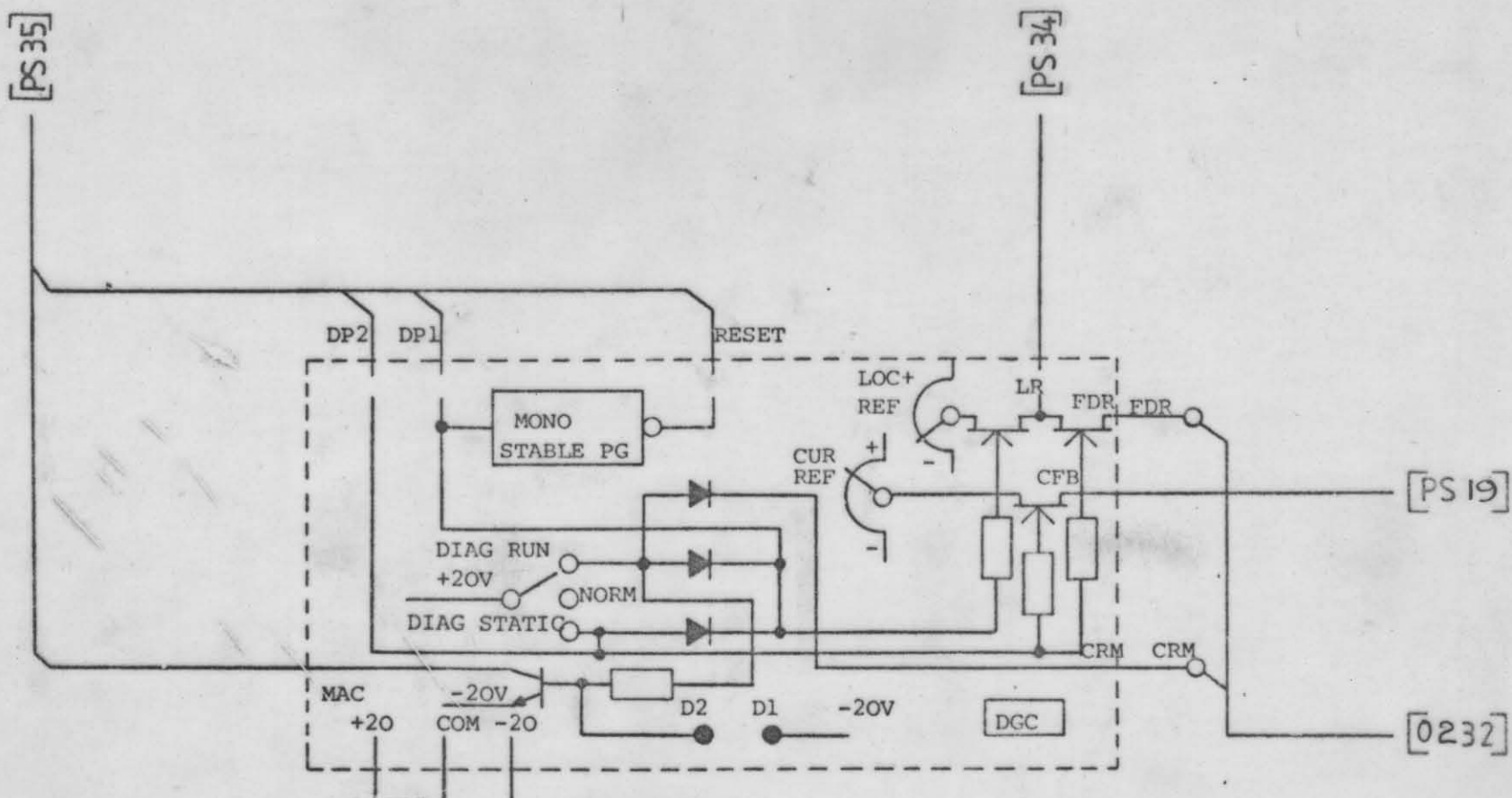
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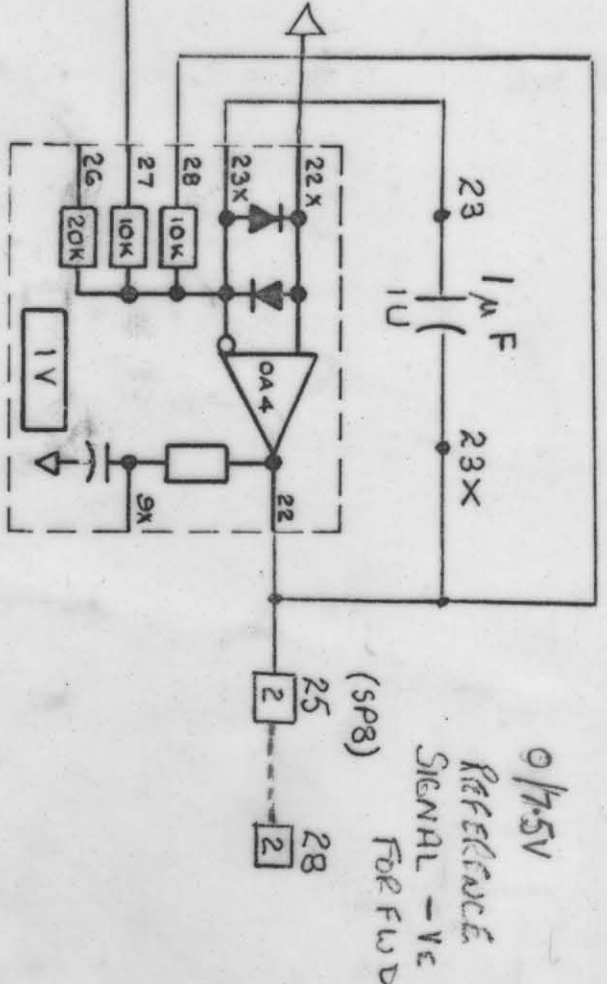
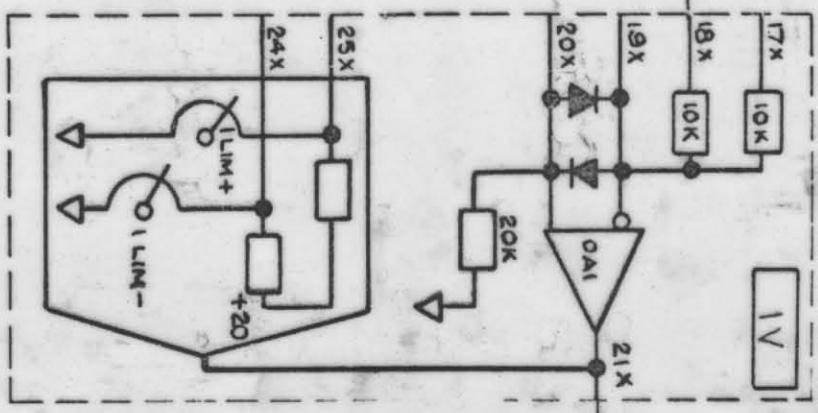
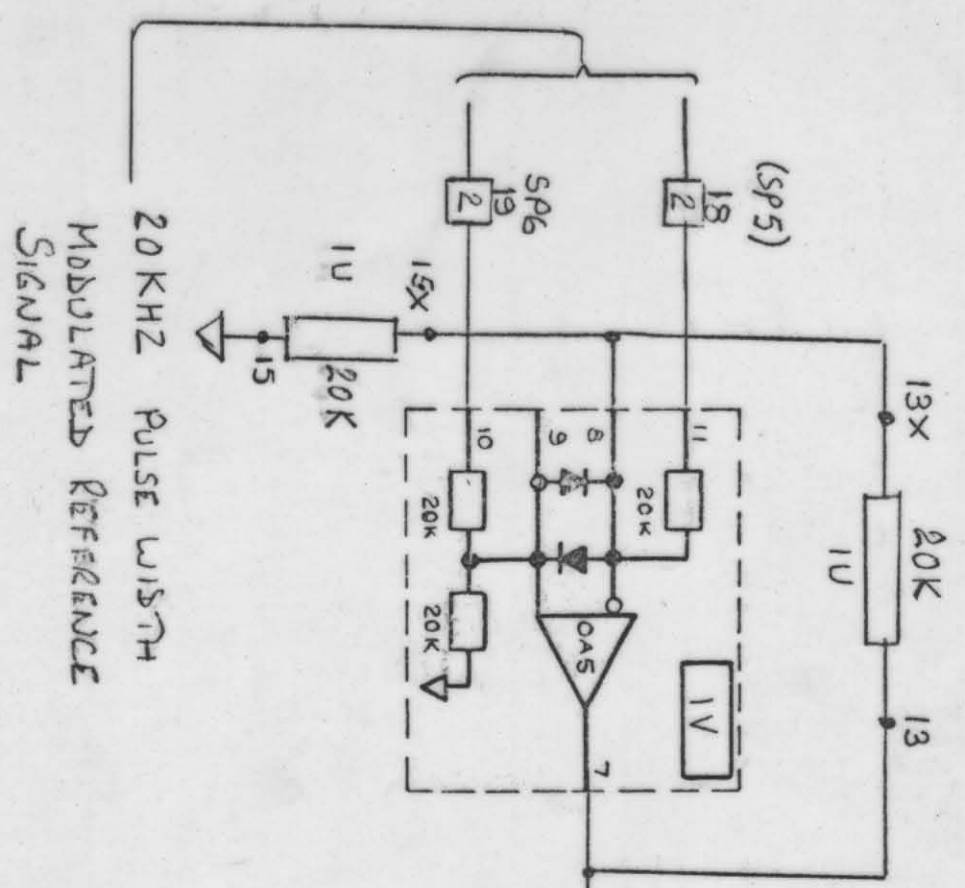
TEST ON 50HZ.

NOTE CHANGE LINKS TO 60HZ ON
 INSTALLATION

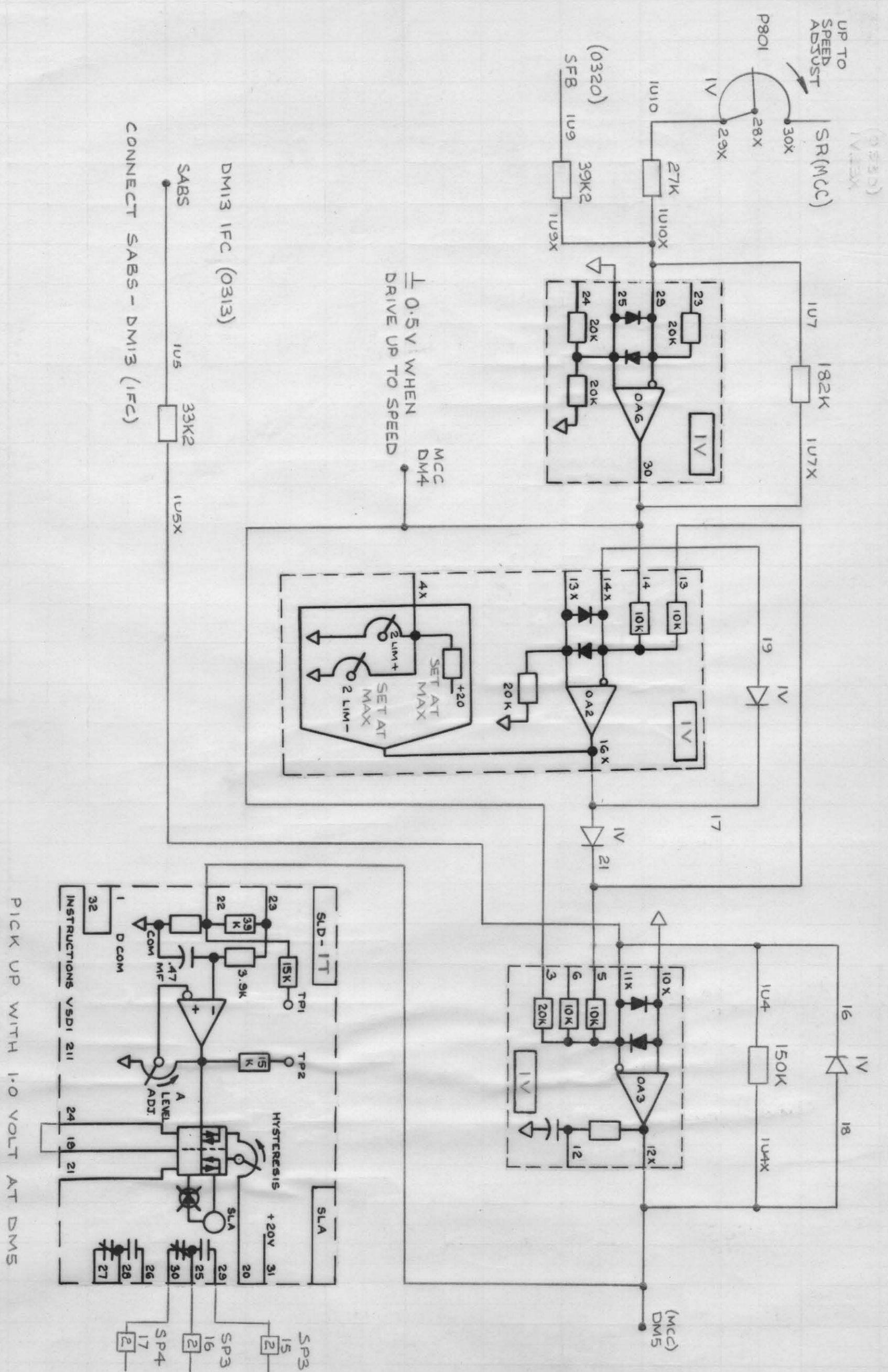
TECHN.	ENG.	APPD.	TECHN.	ENG.	APPD.	DATE	BDC 3064R 20 HP			IDENT		
						17-5-82	FOR KEIGHLEY GRINDERS					
						TECHN.						
						ENG.						
						APPD.						
							VARIABLE SPEED DRIVES OPERATION, BRIGHTON, ENGLAND.		GO NUMBER		ELEMENTARY DIAGRAM	
									206N00		902M126ED	
											CONTD.	
											2	



TECHN.	ENG.	APPD.	TECHN.	ENG.	APPD.	DATE	BDC 3064R 20HP		IDENT	
						10-5-82	FOR KEIGHLEY GRINDERS		OR SH	
							GO NUMBER		4	
							206N00		5	
							902M126ED		5	

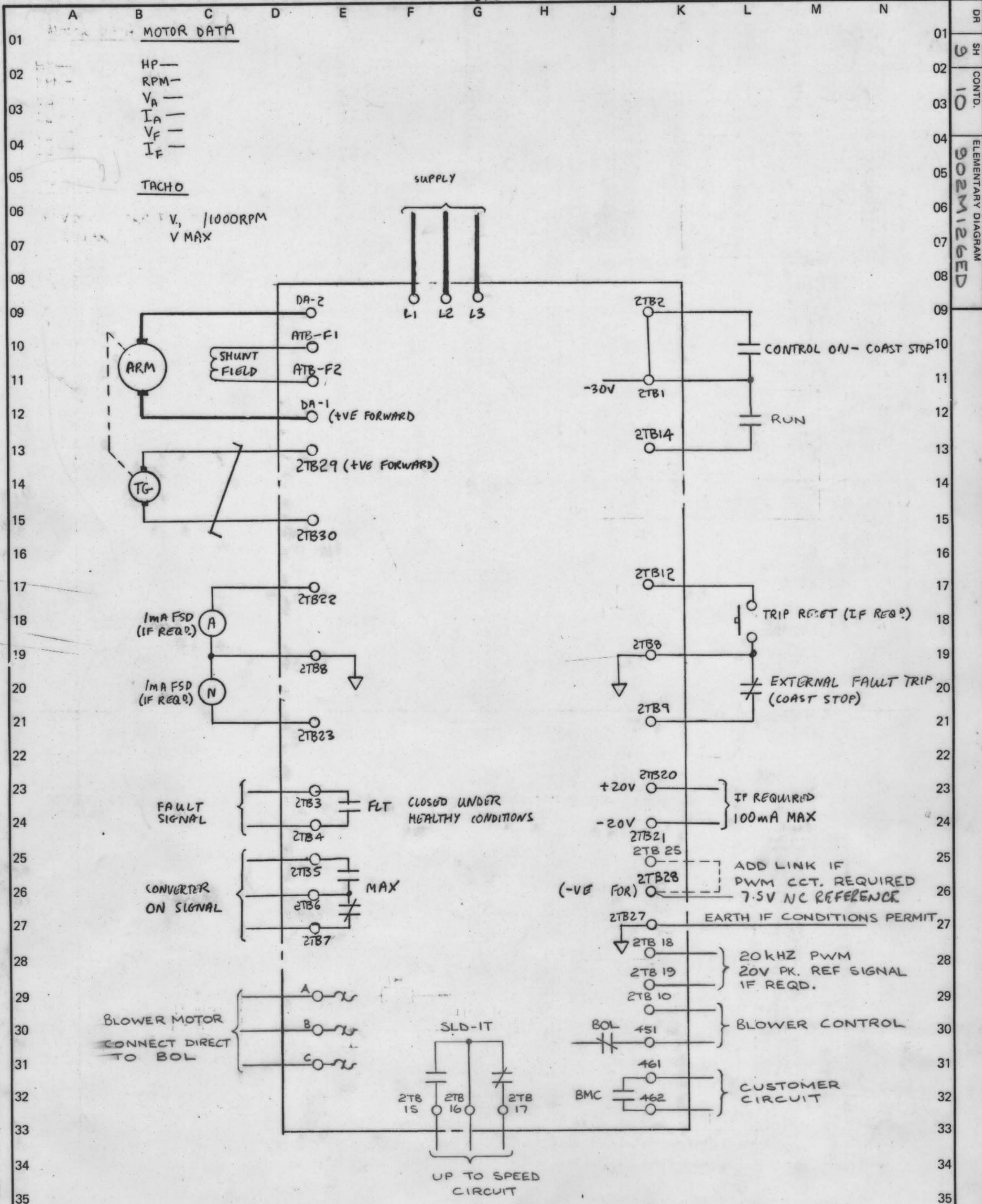


NOTE :-
IF 20KHz PWM CIRCUIT IS REQUIRED WIRE LINK 21825 - 21828 MUST BE ADDED, WITHOUT LINK DRIVE IS ARRANGED FOR STANDARD 7.5V ANALOGUE SIGNAL.



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TECHN.	ENG.	APPD.	TECHN.	ENG.	APPD.	DATE 17-5-82	 Simplex VARIABLE SPEED DRIVES OPERATION, BRIGHTON, ENGLAND.	BDC 3064R 20HP KEIGHLEY GRINDERS UP TO SPEED CIRCUIT			IDENT DR SH 8	
						TECHN. 		GO NUMBER 206N00	ELEMENTARY DIAGRAM 902M126ED	CONTD. 9		
						ENG. 						
						APPD. 						



A			B			C			D			E			F			G			H			J			K			L			M			N		
TECHN.	ENG.	APPD.	TECHN.	ENG.	APPD.	DATE											BDC 3064R 20HP KEIGHLEY GRINDERS DRIVE CONNECTIONS						IDENT															
						17-5-82											GO NUMBER						206N00															
						TECHN.											ELEMENTARY DIAGRAM						902M126ED															
						ENG.											CONTD.						10															
						APPD.																																

ALLENWEST

Simplex 

VARIABLE SPEED
DRIVES OPERATION,
BRIGHTON, ENGLAND.

DR

SH

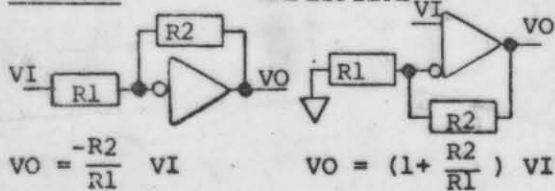
9

VOLTAGE POLARITIES SHOWN ARE FOR MOTORING DA1(+)

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



CASE GROUND



VO = SIGN () X ABSOLUTE VALUE OF VI

STAB ON TERMINAL

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

FUNCTION	USE	LOC	JUMPERS
60HZ	X	MFC	ZA-ZB (IF USED)
50HZ		MCC	HZA - PHA
IOC-400%	X		(NONE)
-500%		IFC	I - IHI
-300%		IFC	I - ILO
SR5 - 9v			(NONE)
9 - 20v	X	MCC	SRH - COM
JOGR 10v			(NONE)
20v		MCC	JH - COM
LT. 3-7sec.	X		(NONE)
2 - 60sec			332Ω FROM LTI TO COM
VREG			NT-CEMF CC-COM.
DC TACHO			(NONE)
AC TACHO	X	MCC	AT1 - AT2
TACHO FILT		IFC	TC - TC
TACHO V.			
24-64vdc		IFC	NT-NT1 PT - PT1
27-71vac		IFC	NT-NT1 PT - PT1
60-160vdc		IFC	NT-NT2 PT - PT2
66-177vac	X	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
1.8 1.7		ME	NONE
1.3 2.8		ME	YB - YD
2.4 5.0	X	ME	YA - YB
4.0 8.0		ME	YA - YB, YC - YD
7.0 13		ME	YA - YC
13 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 - CFY
D. CUR LIM	X		DCX - DCY (75% ON 60HZ)

SEE NOTE *

SIGNAL DEFINITIONS AND LOCATIONS

* 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)
 IMET 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

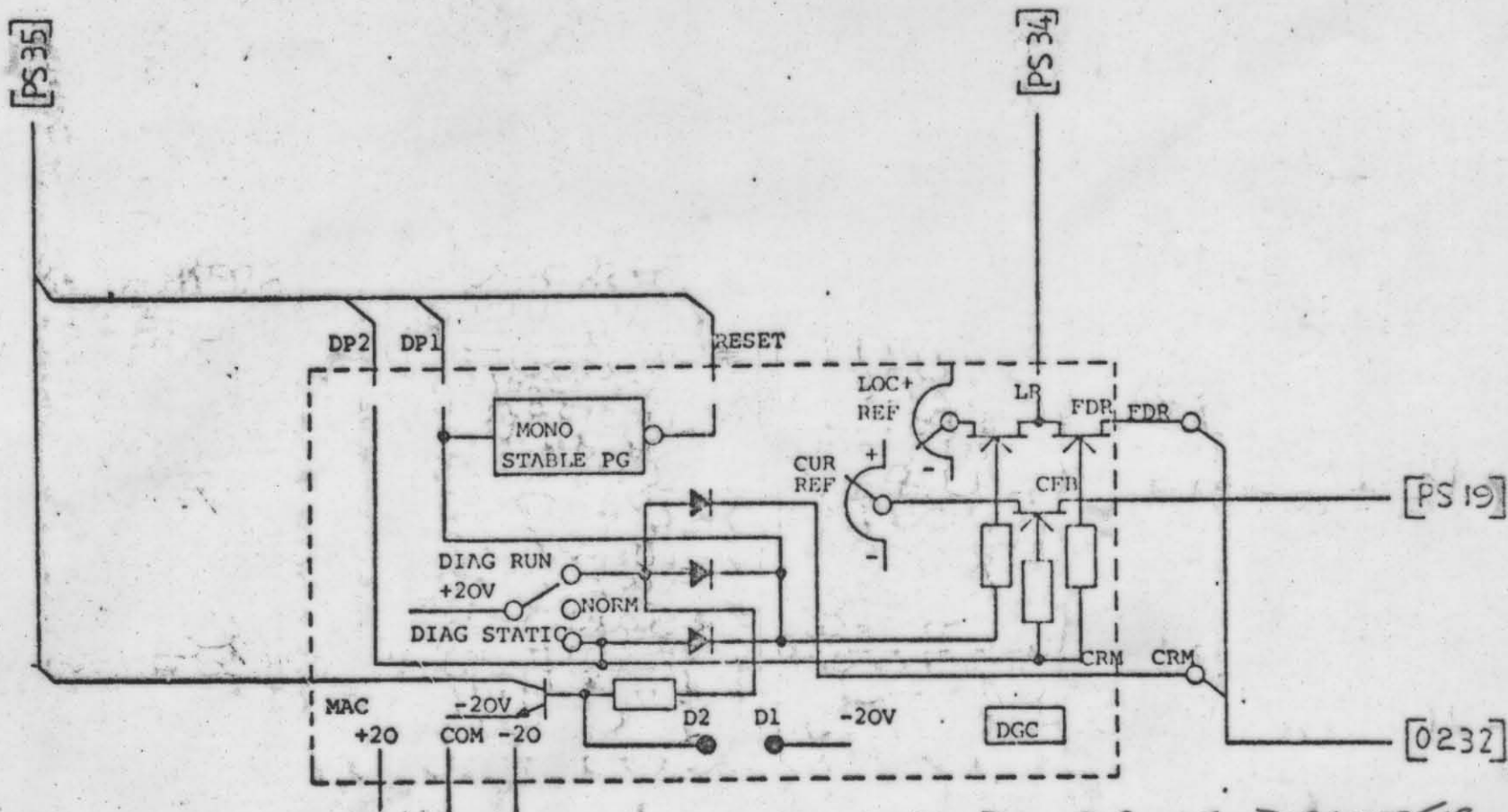
HENCE (PS - 12) DENOTES LOCATION ON PAST SHEET LINE 12. OTHER LOCATIONS ARE
 DENOTED BY SHEET NUMBER AND LINE? E.G. (1A16) SIGNIFIES LOCATION ON SHEET
 1A, LINE 16 ETC.

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.

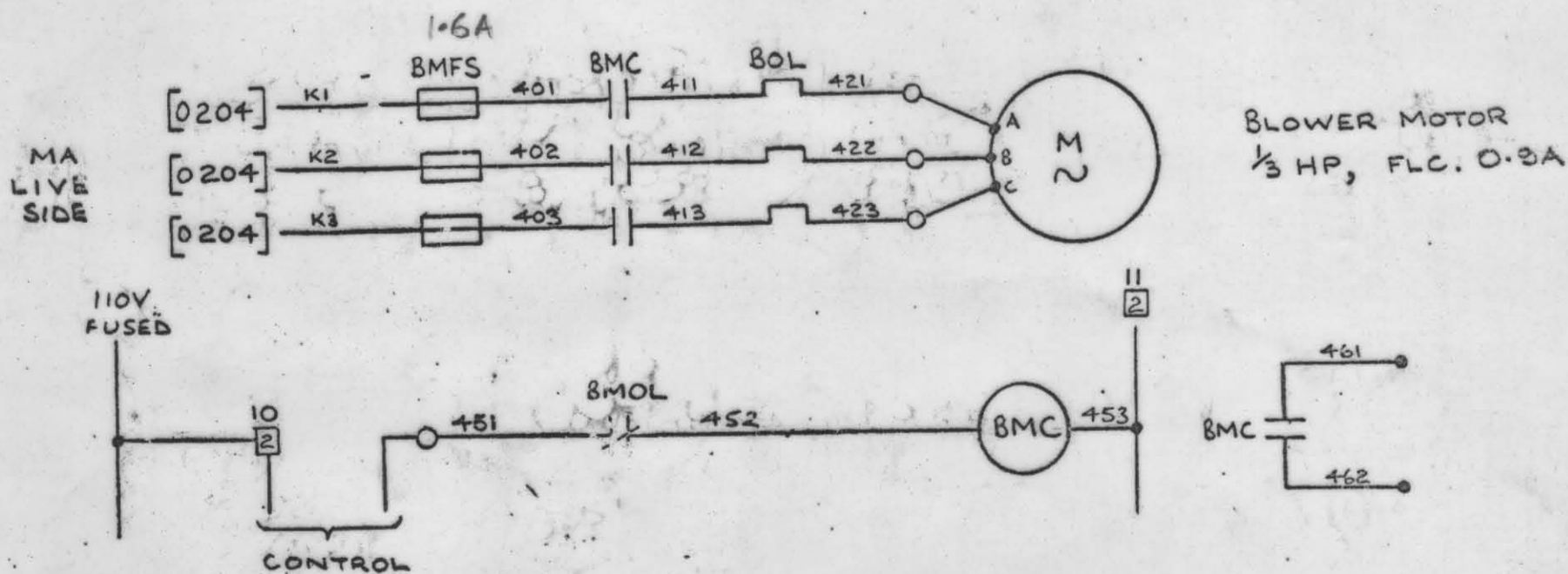
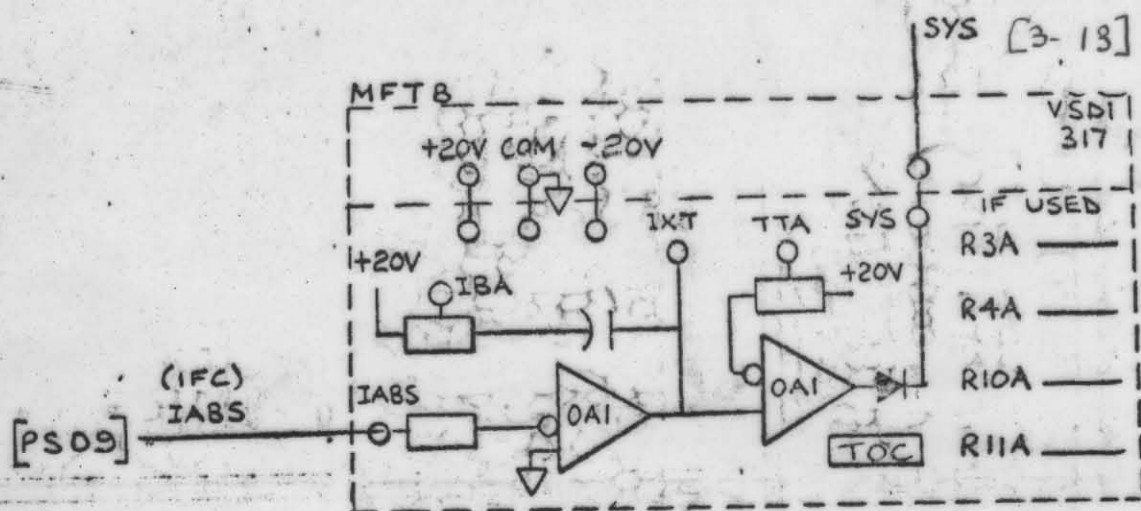
NOTE *

FIT 50 HZ LINKS FOR TEST
 FIT 60 HZ ON INSTALLATION

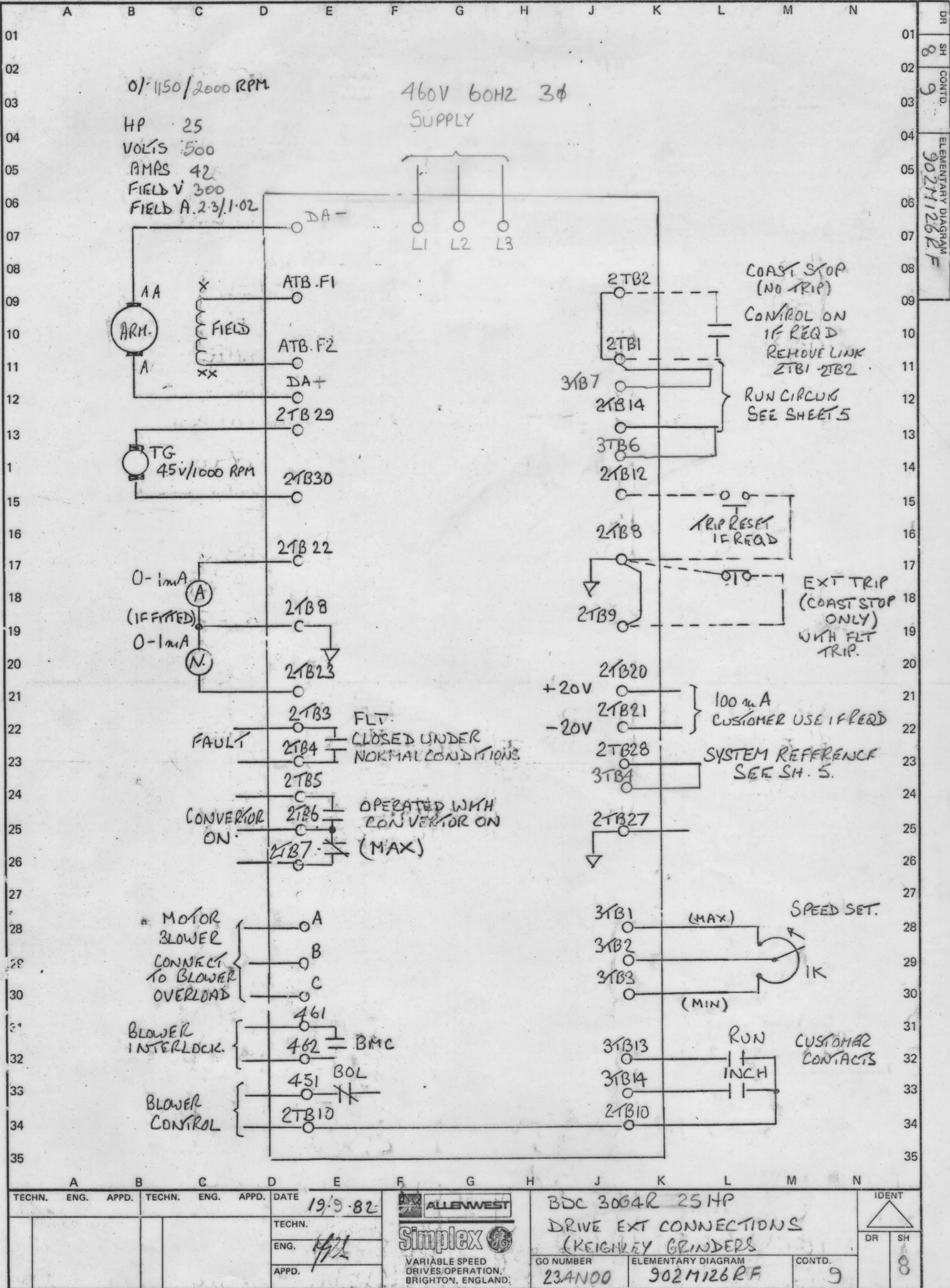
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							TECHN.								DR		SH	
							ENG.											
							APPD.											
							VARIABLE SPEED DRIVES OPERATION, BRIGHTON, ENGLAND.		GO NUMBER		ELEMENTARY DIAGRAM		CONTO.					
									234N00		902M126RF		2		1			



LINK D1 - D2 IF DIAGNOSTIC RUN NOT REQUIRED.



TECHN.	ENG.	APPD.	TECHN.	ENG.	APPD.	DATE	29-9-82	TECHN.	ENG.	APPD.	DATE	29-9-82	TECHN.	ENG.	APPD.	DATE	29-9-82	TECHN.	ENG.	APPD.	DATE	29-9-82
						BDC 3064R 25HP FOR KEIGHLEY GRINDERS G6 NUMBER 234 N00 ELEMENTARY DIAGRAM 302M126 RE 5						IDENT 4										



A B C D E F G H J K L M N

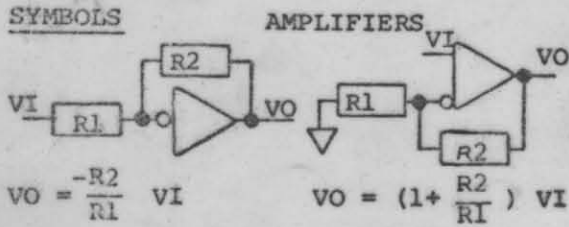
VOLTAGE POLARITIES SHOWN ARE FOR MOTORING DAI(+)

HARDWARE ABBREVIATIONS

MCC MAIN CONTROL CARD
 IFC INTERFACE CARD
 PSC POWER SUPPLY CARD
 SCR THYRISTOR ASSEMBLY
 DGC DIAGNOSTIC CARD
 MFC MOTOR FIELD CONTROL

MDR MODIFICATION RACK

SYMBOLS



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 [2] - 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.

FUNCTION	USE	LOC	JUMPERS
60HZ		MCC	AA-AS, BA-BG, CA-CS
		MFC	ZA-ZB (IF USED)
50HZ		IFC	0.0047uF RT1-RT2
		IFC	0.0047uF RT2-RT3
		IFC	0.0047uF RT3-RT1
		MCC	AA-AF, BA-BF, CA-CF
IOC-400%	✓		NONE
-500%		IFC	I-IH1
-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		MCC	332Q FROM LT1 TO COM
VREG		IFC	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-NT3, PT-PT3
110-300vdc		IFC	NT-NT3, PT-PT3
120-300vac	✓	IFC	NT-NT3, PT-PT3
GI34 G256		MFC	NONE
1.3 1.7		MFC	YB-YD
2.4 2.8		MFC	YA-YB
4.0 5.0		MFC	YA-YB, YC-YD
7.0 8.0		MFC	YA-YC
13 15		MFC	YA-YC, YB-YD
L/R < .25S		MFC	QA-QB
INH RUN		DGC	D1-D2 (IF USED)

SEE NOTE 1

SIGNAL DEFINITIONS AND LOCATIONS

* CEMF COUNTER EMF (3 16)
 * CFB CURRENT FEEDBACK (3 16)
 CMFA ABSOLUTE VALUE CEMF (3 08)
 CRM CROSSOVER MODIFY (2 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)
 IMET CURRENT SIGNAL FOR METER (3 10)
 * IPU INITIAL PULSE (3 20)
 * LR LOCAL REF. FROM DGC (4 33)
 * JOGR 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.

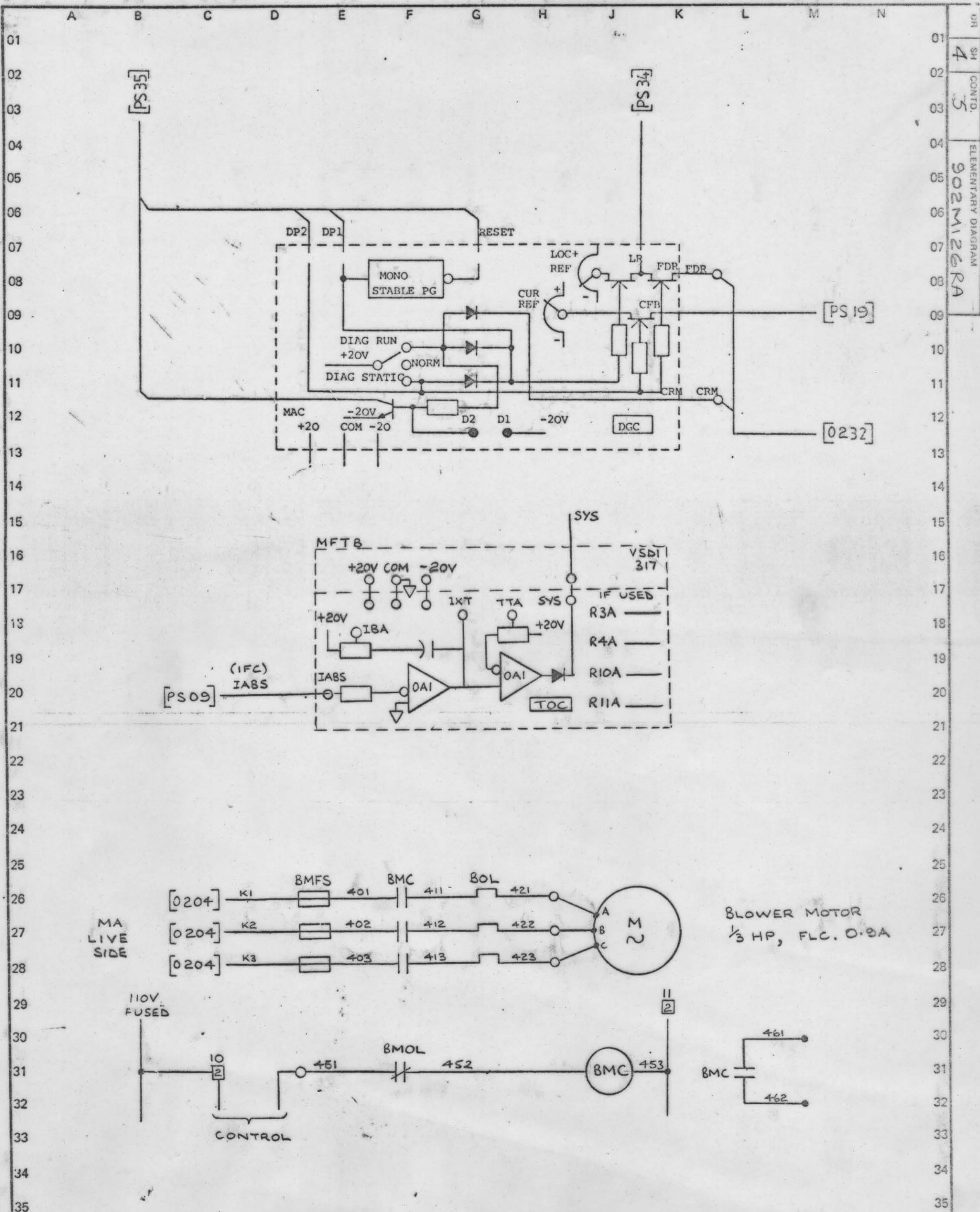
NOTE: FIELD EFFECT TRANSISTOR: THE
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 OR JOG" - "DIAGNOSTIC STATIC" -
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THESE RESISTORS ARE CRIMPED IN WIRE HARNESS

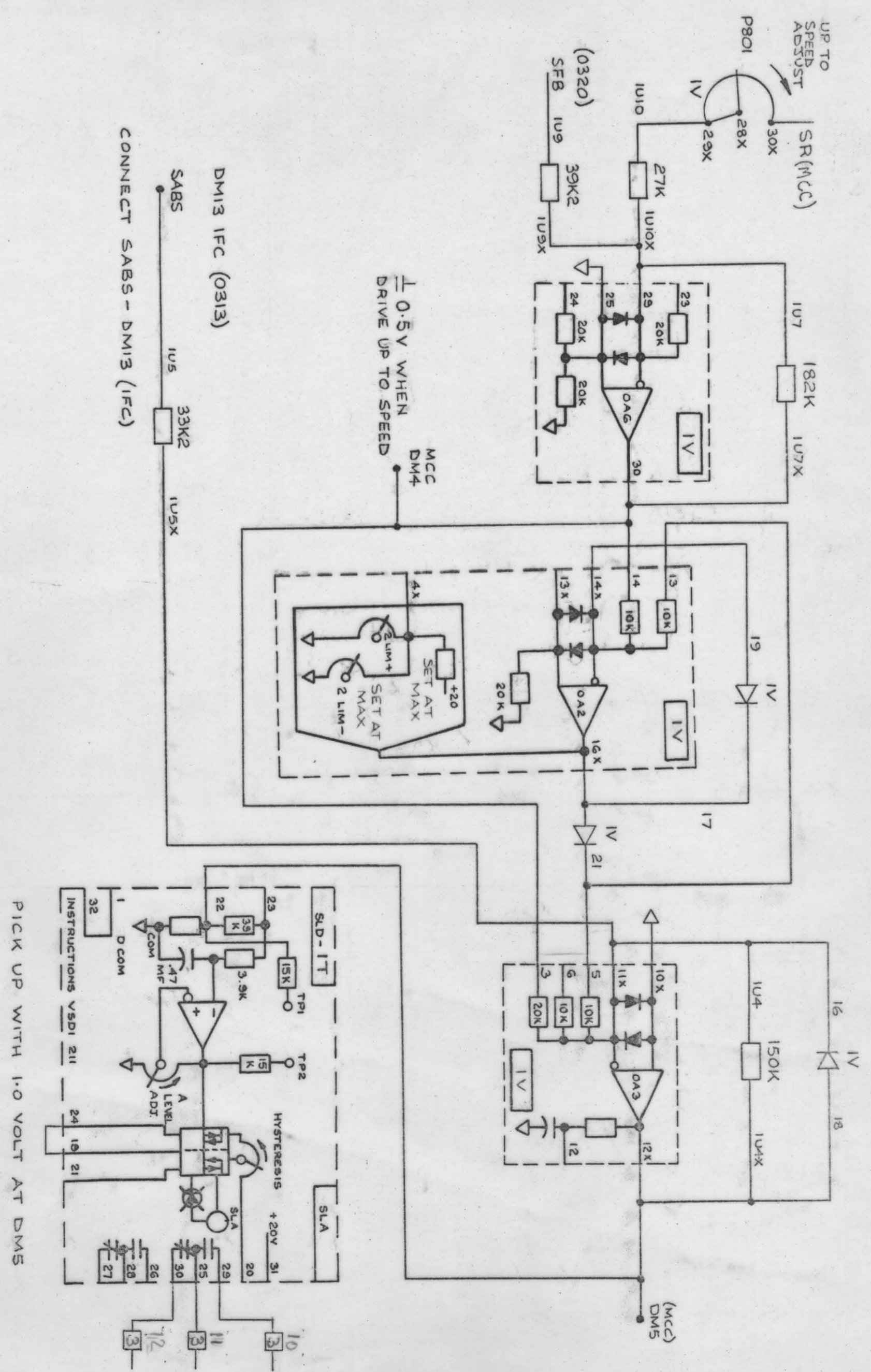
NOTE 1:

FK 50 HZ LINKS AND CAPACITORS FOR TEST.
 REMOVE CAPACITORS AND FK 60 HZ LINKS
 FOR 60 HZ OPERATION.

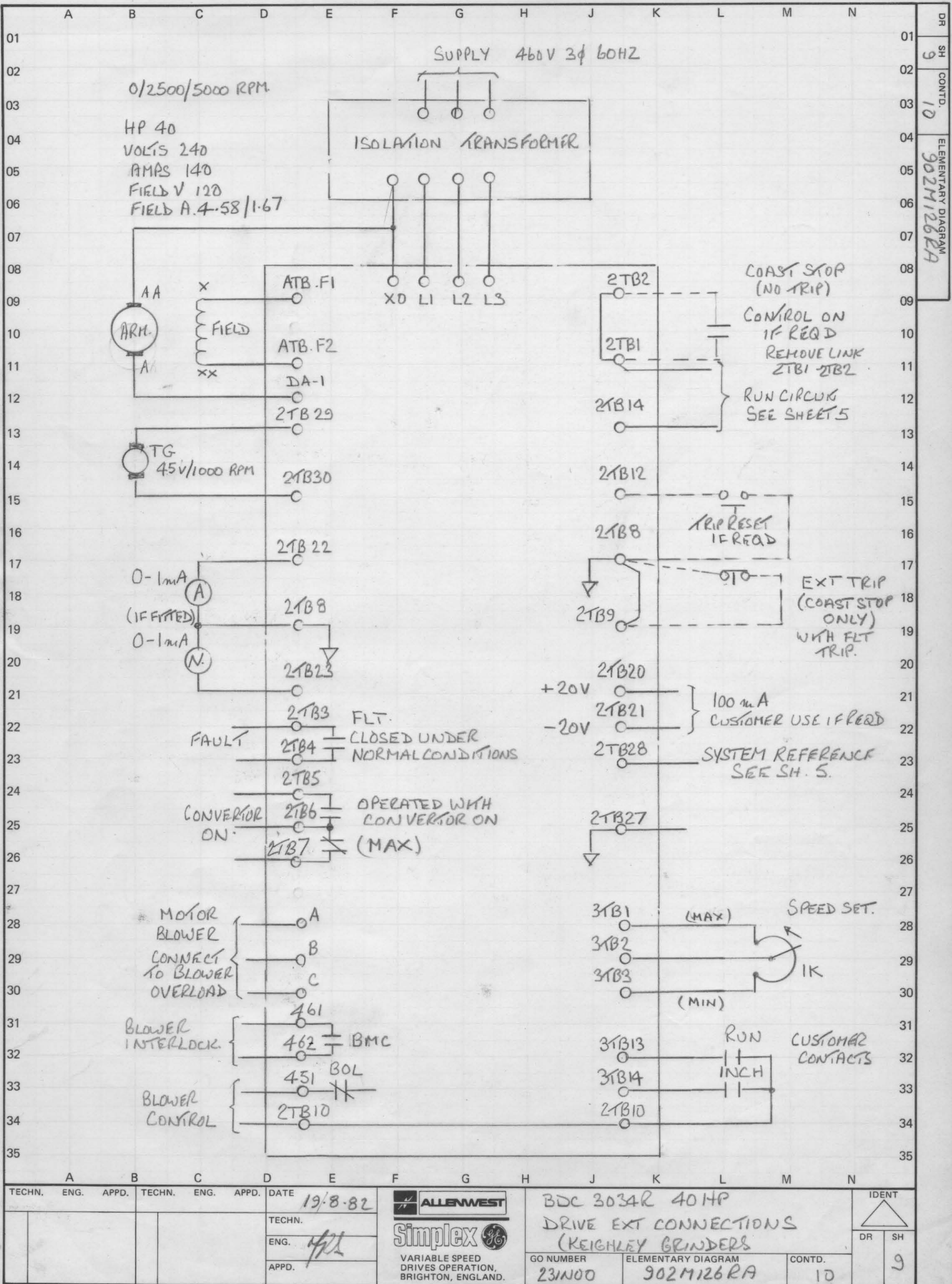
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						TECHN.				Simplex			FOR KEIGHLEY GRINDERS			DR SH	
						ENG.	PDS			VARIABLE SPEED DRIVES OPERATION. BRIGHTON, ENGLAND.			GO NUMBER			231N00	
						APPD.	RSC						ELEMENTARY DIAGRAM			902M126RA	
												CONTD.			2.		



TECHN.	ENG.	APPD.	TECHN.	ENG.	APPD.	DATE			BDC 3034R 4.0HP		IDENT
						11-8-82			FOR KEIGHLEY GRINDERS		OR SH
							VARIABLE SPEED DRIVES OPERATION, BRIGHTON, ENGLAND.		GO NUMBER	ELEMENTARY DIAGRAM	4
									231N00	902M126RA	5



TECHN.	ENG.	APPD.	TECHN.	ENG.	APPD.	DATE	12.8.82	 Simplex VARIABLE SPEED DRIVES OPERATION, BRIGHTON, ENGLAND.	BDC 3034R 400HP KEIGHLEY GRINDERS UP TO SPEED CIRCUIT			IDENT DR SH 6		
						TECHN.			GO NUMBER	231N00	ELEMENTARY DIAGRAM	902M126RA	CONTD.	7
						ENG.								
						APPD.								



A B C D E F G H J K L M N

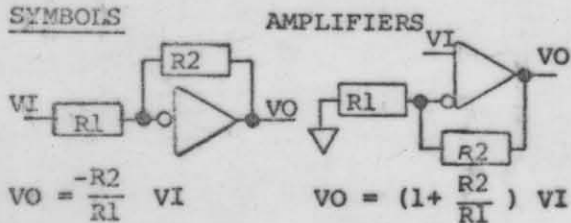
VOLTAGE POLARITIES SHOWN ARE FOR MOTORING DA1(+)

HARDWARE ABBREVIATIONS

MCC MAIN CONTROL CARD
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SYMBOLS



CASE GROUND

VO = SIGN () X ABSOLUTE VALUE OF VI

STAB ON TERMINAL

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

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

FUNCTION	USE	LOC	JUMPERS
60HZ	X	MCC MFC	AA-AS, BA-BG, CA-CS ZA-ZB (IF USED)
50HZ		IFC IFC IFC MCC	0.0047uF RT1-RT2 0.0047uF RT2-RT3 0.0047uF RT3-RT1 AA-AF, BA-BF, CA-CF
IOC-400% -500% -300%	X	IFC IFC	NONE I-IHI I-ILO
SR5 - 9v 9 - 20v	X	MCC	SRH-COM
JOGR 10v			(NONE)
20v		MCC	JH - COM
LT. 3-7sec. 2 - 60sec	X		(NONE)
VREG		IFC	NT-CMF, CC-COM
DC TACHO			(NONE)
AC TACHO	X	MCC	AT1-AT2
TACHO FILT		IFC	TC-TC
TACHO V. 24-64vdc 27-71vac 60-160vdc 66-177vac	X	IFC IFC IFC IFC	NT-NT1, PT-PT1 NT-NT1, PT-PT1 NT-NT2, PT-PT2 NT-NT2, PT-PT2
110-300vdc 120-300vac		IFC IFC	NT-NT3, PT-PT3 NT-NT3, PT-PT3
G134 G256 1.7 2.1, 3.1 2.8 2.4 5.0 4.0 8.0 7.0 13 13 25	X	MFC MFC MFC MFC MFC	NONE YB-YD YA-YB YA-YB, YC-YD YA-YC YA-YC, YB-YD
L/R < .25s		MFC	QA-QB
INH RUN		DGC	D1-D2 (IF USED)

SIGNAL DEFINITIONS AND LOCATIONS

* CEMF COUNTER EMF (316)
 * CFB CURRENT FEEDBACK (316)
 CMFA ABSOLUTE VALUE CEMF (308)
 CRM CROSSOVER MODIFY (311)
 DFP DELAYED FIRING POWER (325)
 * DR DRIVER REFERENCE (333)
 * EAO ERROR AMP OUTPUT (333)
 EST EXTERNAL FLT STOP INPUT (314)
 FALT FAULT (314)
 * FC FIELD CURRENT (NS26)
 FDR FIELD DIAGNOSTIC REFERENCE (408)
 FEA FIELD ECONOMY ADJUST (325)
 FF FIELD FAULT (328)
 IABS MOTOR CURRENT ABSOLUTE (309)
 ILA CURRENT LIMIT ADJUST (323)
 IMET CURRENT SIGNAL FOR METER (310)
 * IPU INITIAL PULSE (320)
 * LR LOCAL REF. FROM DGC (333)
 * JOG JOG SWITCH INPUT (323)
 * JOGR JOG REFERENCE INPUT (331)
 * MAC MAX/MA CONTROL SIGNAL (320)
 MSW MODE SWITCH (330)
 * OSC OSCILLATOR (317)
 * PCR PHASE CONTROL REF. (326)
 * PRE DRIVE PRECONDITION (321)
 ØSEQ PHASE SEQUENCE (314)
 RERR REGULATOR ERROR (327)
 RIJ INTEGRATOR SUMMING JUNCTION (327)
 RJ REGULATOR SUMMING JUNCTION (331)
 RRA REGULATOR RESPONSE ADJUST (330)
 RSET RESET (316)
 * RTR READY TO RUN (316)
 * RUN RUN SWITCH INPUT (321)
 * SA-C PHASE SYN OUTPUT (316)
 * SFB SPEED FEEDBACK (320)
 SMET SPEED SIGNAL FOR METER (312)
 * SR SYSTEM REFERENCE INPUT (329)
 * SYS SYSTEM FAULT TRIP (313)
 * TA OUTPUT FOR TACHO TRIP ADJUST (320)
 TF TACHO FAULT (NS28)
 * TFB TACHOMETER FEEDBACK (320)
 TFR AC TACHO FREQUENCY OUTPUT (313)
 * TR TIMED REFERENCE (333)
 * VFB VOLTAGE FEEDBACK (319)
 * WFR WEAK FIELD REFERENCE (320)

(* - 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.

THESE RESISTORS ARE CRIMPED IN WIRE HARNESS

FIT 50HZ JUMPERS (0.0047uF CAPACITORS)
 FOR 50HZ UK TEST. REMOVE AND FIT
 60HZ JUMPERS FOR INSTALLATION IN USA.
 (0.0047uF CAPACITORS MUST BE REMOVED FOR 60HZ)

TECHN.	ENG.	APPD.	TECHN.	ENG.	APPD.	DATE					50 HP, BDC 3034R				IDENT	
NGM	FRS	ASH	FRS	FRS	ASH	14/10/80					(KEIGHLEY GRINDERS)				DR SH	
SEE SHEET 9	SEE SHEET 9		SEE SHEET 9													
4	2		4	2												
11/8/81	17/2/81		11/8/81	17/2/81												

VARIABLE SPEED
DRIVES OPERATION,
BRIGHTON, ENGLAND.

GO NUMBER

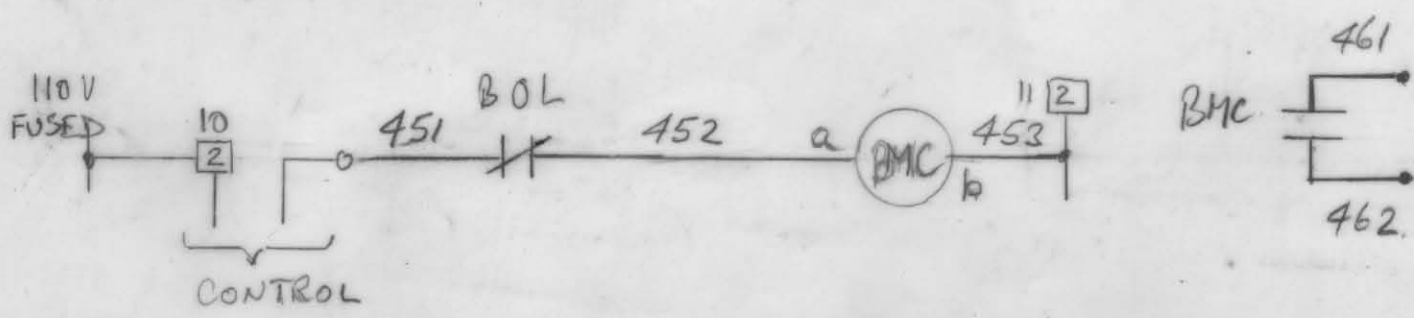
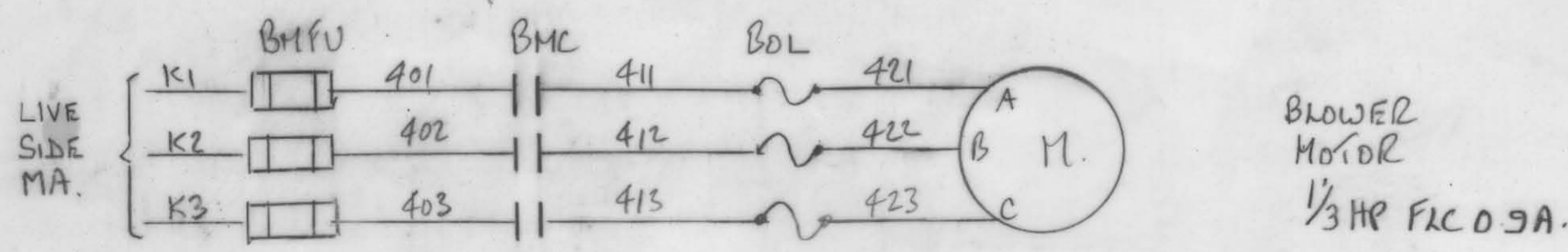
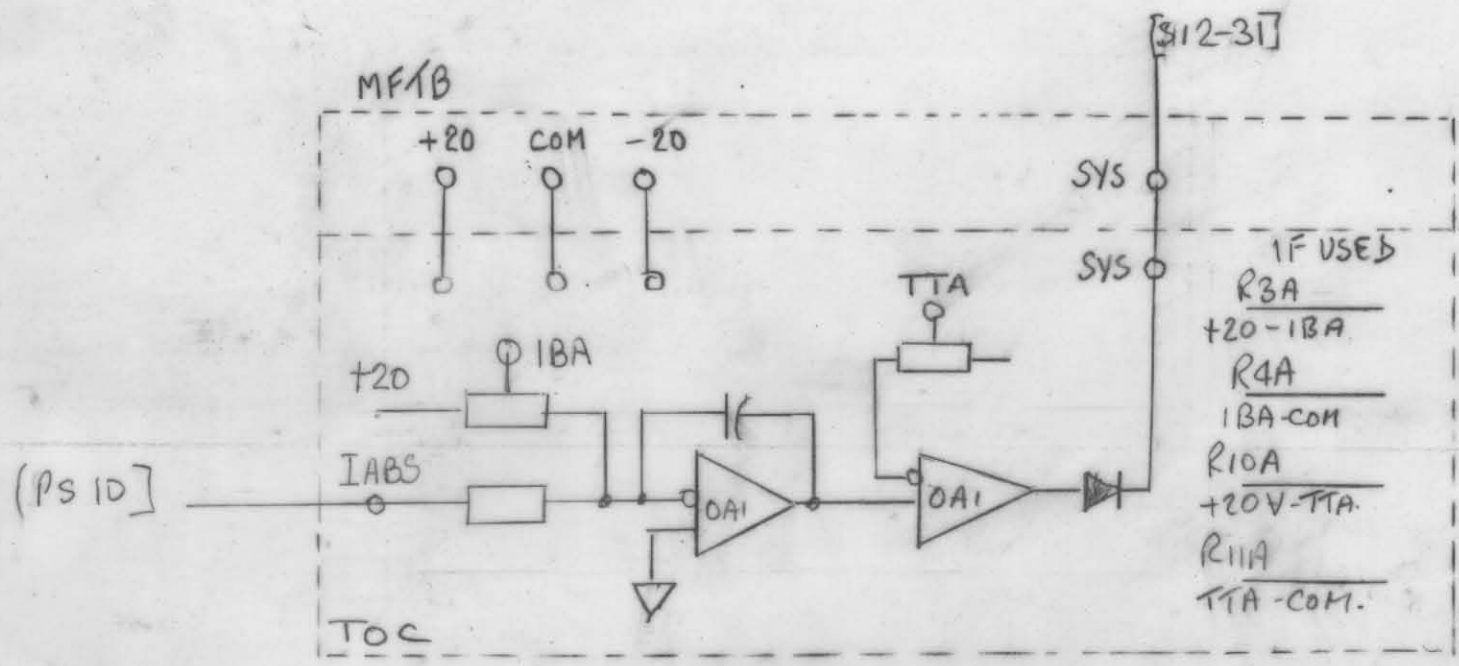
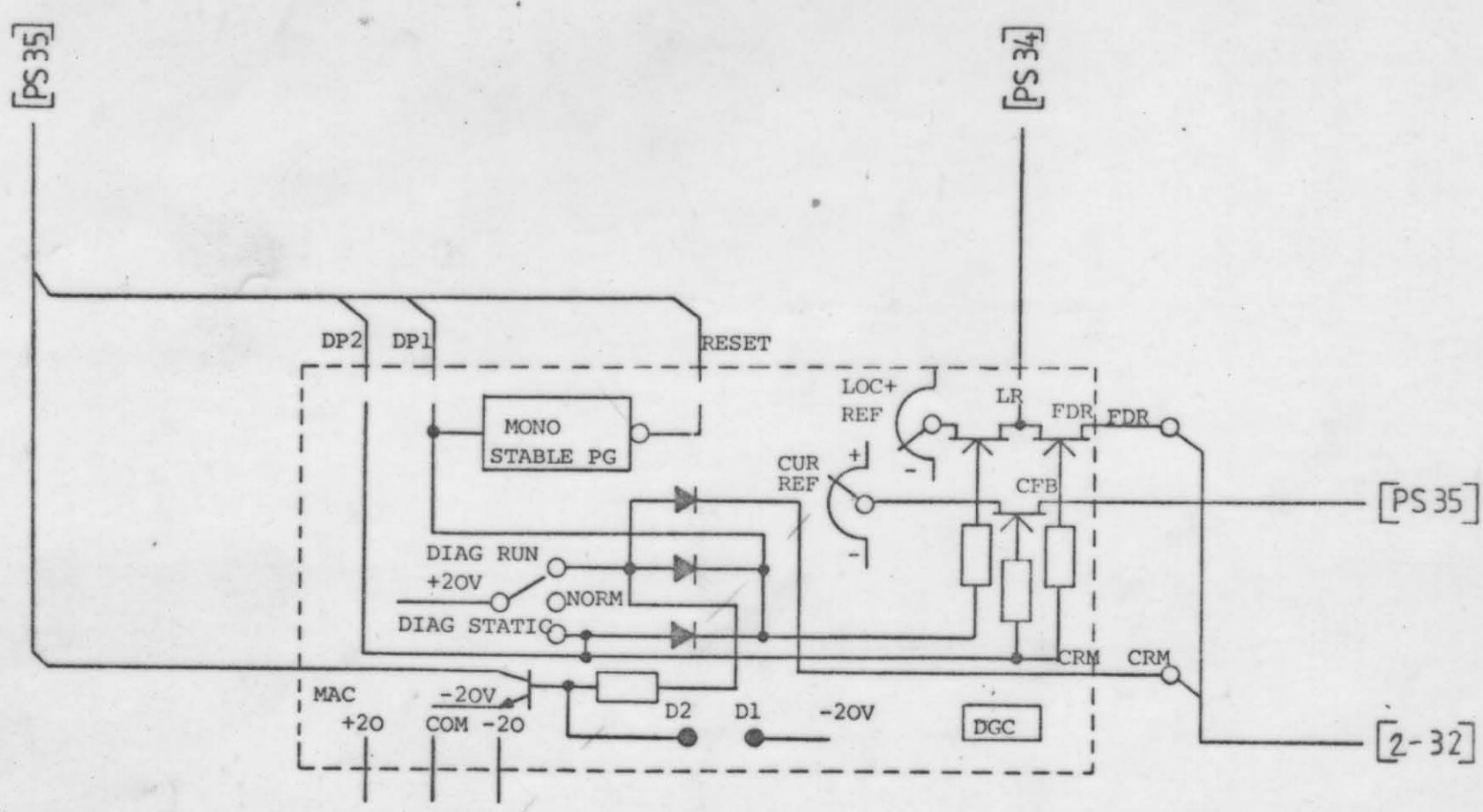
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ELEMENTARY DIAGRAM

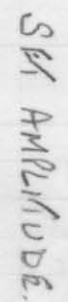
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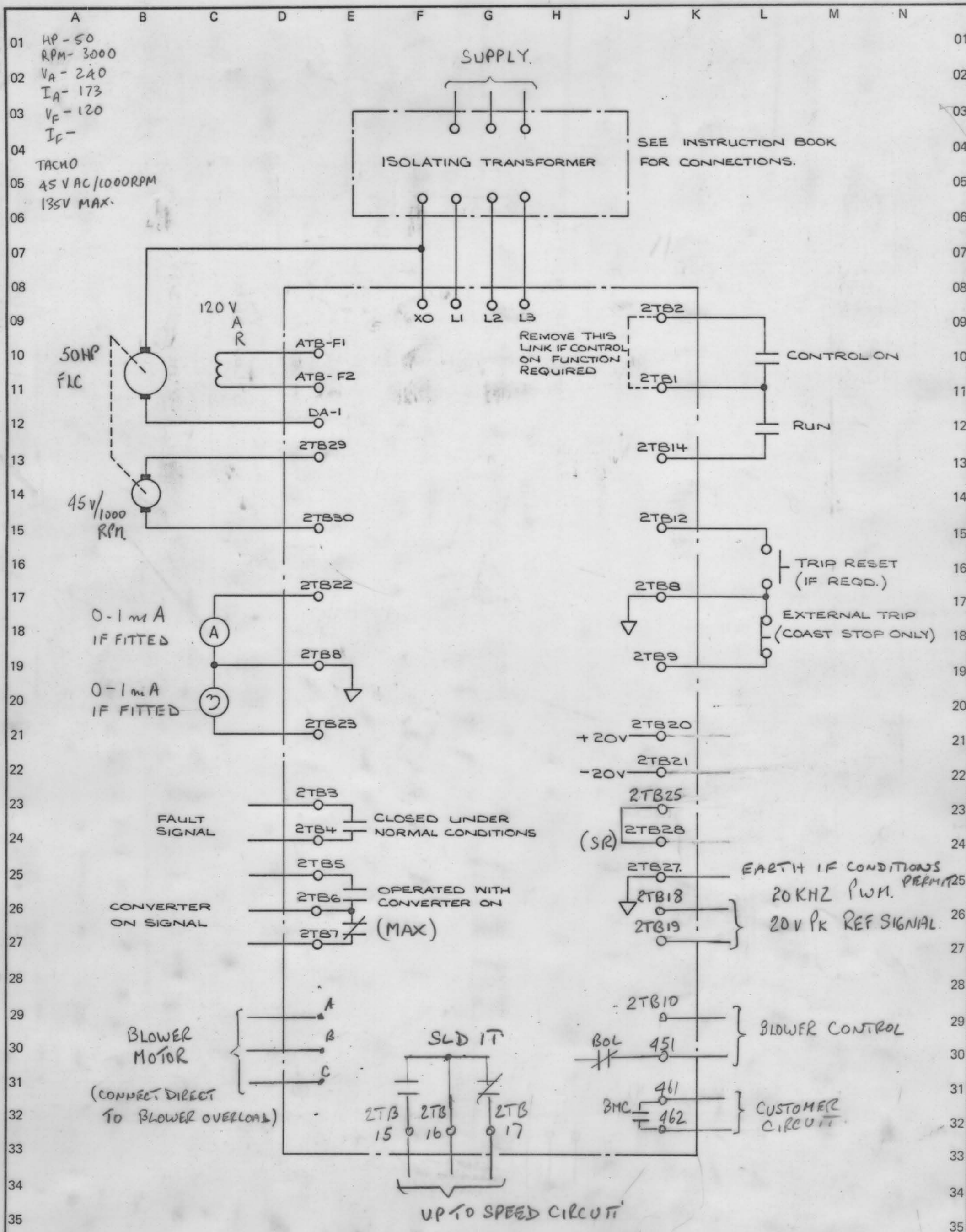
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							Allenwest Simplex				
							VARIABLE SPEED DRIVES OPERATION, BRIGHTON, ENGLAND.				





TECHN.	ENG.	APPD.	TECHN.	ENG.	APPD.	DATE	50 HP 3034 R		IDENT	
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						ENG. F.25				
						APPD.				
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 VARIABLE SPEED DRIVES OPERATION, BRIGHTON, ENGLAND.							GO NUMBER	ELEMENTARY DIAGRAM	CONTD.	
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