ELECTRICAL

DIAGRAMS

EZPATH-SD V1.0

DX-32R CONTROL

REL	MODIFICATION	MODIF.	APROV.	DATE
N	SEE NOTE 'REL. N' AT PAGE 50 A	MARCIO	ROGÉRIO	07/05/2001
M	SEE NOTE 'REL. M' AT PAGE 50 A	MARCIO	BAPTISTA	28/03/2001
L	SEE NOTE 'REL. L' AT PAGE 50 A	MARCIO	BAPTISTA	27/09/2000
K	SEE NOTE 'REL. K' AT PAGE 50 A	ROGÉRIO	GERALDO	17/05/00
J	SEE NOTE 'REL. H' AT PAGE 50 A	MONTOYA	BAPTISTA	09/02/2000
H	SEE NOTE 'REL. H' AT PAGE 50 A	FRANCISCO	BAPTISTA	28/10/1999
G	SEE NOTE 'REL. G' AT PAGE 50 A	BATISTA	GERALDO	15/06/1999

REL	MODIFICATION	MODIF.	APROV.	DATE
F	SEE NOTE 'REL. F' AT PAGE 50A	ROGERIO	GERALDO	11/09/98
E	SEE NOTE 'REL. E' AT PAGE 50A	ROGERIO	GERALDO	9/10/98
D	SEE NOTE 'REL.D' AT PAGE 50A	PABLO	GERALDO	6/10/98
C	SEE NOTE 'REL.C' AT PAGE 50A	PABLO	SILVIO	01/28/98
B	SEE NOTE 'REL B' AT PAGE 50A	PABLO	SILVIO	05/11/97

DESCRIPTION	ELECTR. DIAGR. EZPATH-SD V1.0 DX-32R			
	DESIGNED	PABLO	09/04/1997	PROJECTION
	DRAWER	PABLO	09/04/1997	SIZE A3
	CONTROLLED	SILVIO	09/05/1997	
REFERENCE	SHEET 0A / 1+	SCALE 1:1	APPLICATION EZPATH-SD V1.0	N° R78514 N

INDEX TABLE

SUBJECT	SHEET	P/N ROMI	CFG EZ-I 1M	CFG EZ-II 1M	CFG EZ-II 1.5M	CFG EZ-II 2M
SAFETY PRECAUTIONS						
CONTROL AC AND DC POWER	1A	R78515 D	X	X	X	X
SPINDLE DRIVE I/O AND POWER	2A	R79632 G	X			
SPINDLE DRIVE I/O AND POWER	2B	R78516 G		X	X	X
X AND Z AXIS DRIVES	3A	R78517 C	X	X	X	X
CNC	4A	R78518 D	X	X	X	X
CONTROL PANEL	5A	R78519 B	X	X	X	X
REMOTE CONTROL PANEL (CONSOLE)	6A	R78520 E	X	X	X	X
EMERGENCY STOP	7A	R78521 B	X	X	X	X
WORK LIGHT	8A	R78522 D	X	X	-	-
WORK LIGHT	8B	R94213 B	-	SPE	SPE	SPE
WORK LIGHT	8C	R98531 A	-	-	X	-
WORK LIGHT	8D	R98533 A	-	-	-	X
GENERAL CONNECTIONS	9A	R78523 D	X	X	X	X
LUBE PUMP	10A	R78524 C	X	X	X	X
COOLANT PUMP	11A	R78526 B	X	X	X	X
PNEUMATIC CHUCK	13A	R78528 D	OPT	OPT	OPT	OPT
PNEUMATIC TAILSTOCK	14A	R78529 B	OPT	OPT	OPT	OPT
CHIP CONVEYOR	15A	R88471 B	OPT	OPT	OPT	OPT
ELECTRICAL TURRET 8 POSIC	18A	R88391 B	OPT	OPT	OPT	OPT
BAR FEEDER	20A	R78530 C	OPT	OPT	OPT	OPT
INPUT MAP	40A	R78531 E	X	X	X	X
OUTPUT MAP	41A	R78532 C	X	X	X	X

CONFIGURATION : X = STANDARD OPT = OPCIONAL SPE = SPECIAL

OR

REL.	MODIFICATION	MODIF.	APROV.	DATE
N	SEE NOTE REL. N' AT PAGE 50 A	MARCIO	ROGERIO	07/05/2003
M	SEE NOTE REL. M' AT PAGE 50 A	MARCIO	BAPTISTA	28/03/2003
L	SEE NOTE REL. L' AT PAGE 50 A	MARCIO	BAPTISTA	27/09/2000
K	SEE NOTE 'REL. K' AT PAGE 50 A	ROGÉRIO	GERALDO	17/05/00
J	SEE NOTE REL. H' AT PAGE 50 A	MONTOYA	BAPTISTA	09/03/2000
H	SEE NOTE REL. H' AT PAGE 50 A	FRANCISCO	BAPTISTA	26/10/1999
G	SEE NOTE REL. G' AT PAGE 50 A	BATISTA	GERALDO	16/09/1999

REL.	MODIFICATION	MODIF.	APROV.	DATE
F	SEE NOTE 'REL. F' AT PAGE 50A	ROGERIO	GERALDO	11/08/98
E	SEE NOTE 'REL. E' AT PAGE 50A	ROGERIO	GERALDO	9/12/98
D	SEE NOTE 'REL D' AT PAGE 50A	PABLO	GERALDO	6/18/98
C	SEE NOTE 'REL.C' AT PAGE 50A	PABLO	SILVIO	01/28/98
B	SEE NOTE 'REL.B' AT PAGE 50A	PABLO	SILVIO	06/11/97

DESCRIPTION	ELECTR. DIAGR. EZPATH-SD V1.0 DX-32R			
DESIGNED	PABLO	09/04/1997	PROJECTION	SIZE
DRAWER	PABLO	09/04/1997		A3
CONTROLLED	SILVIO	09/10/1997		
REFERENCE	SHEET 0A / 2*	SCALE 1:1	APPLICATION EZPATH-SD V1.0	N° R78514 N

INDEX TABLE

SUBJECT	SHEET	P/N ROMI	CFG			
			EZ-I	EZ-II		
			1M	1M	1.5M	2M
ELECTRICAL PANEL LAYOUT	42A	R78533 E	X	X	X	X
OPERATOR'S PANEL LAYOUT	43A	R78534 B	X	X	X	X
REMOTE CONTROL PANEL LAYOUT	44A	R78535 A	X	X	X	X
MACHINE LATHE LAYOUT	45A	R78536 C	X	X	X	X
FUNCTION / DESCRIPTION OF PARTS	46A	R78537 H	X	X	X	X
PARAMETERS	47A	R78538 E	X	X	X	X
EZ-ISD V1 CNC PARAMETERS	47B	R88831 A	X			
EZ-IISD V1 CNC PARAMETERS	47C	R88834 A		X	X	X
SPINDLE DRIVE PARAM. EZ-ISD V1	47D	R80696 C	X			
SPINDLE DRIVE PARAM. EZ-IISD V1	47E	R80697 C		X	X	X
AXIS DRIVE PARAM. EZ-IS V3	47F	R74652 B	X			
AXIS DRIVE PARAM. EZ-IIS V3	47G	R80123 A		X	X	X
EZ-ISD V1 CNC PARAMETERS - OPT	47H	R88783 B	OPT			
EZ-IISD V1 CNC PARAMETERS - OPT	47I	R88780 B		OPT	OPT	OPT
REFERENCE INT. CODES	48A	R78539 A	X	X	X	X
RELEASE NOTES	50A	R78540 M	X	X	X	X

CONFIGURATION : X = STANDARD OPT = OPCIONAL SPE = SPECIAL

REL.	MODIFICATION	MODIF.	APROV.	DATE
N	SEE NOTE 'REL. N' AT PAGE 50 A	MARCIO	ROGERIO	07/05/2001
M	SEE NOTE 'REL. M' AT PAGE 50 A	MARCIO	BAPTISTA	28/03/2001
L	SEE NOTE 'REL. L' AT PAGE 50 A	MARCIO	BAPTISTA	27/09/2000
K	SEE NOTE 'REL. K' AT PAGE 50 A	ROGERIO	GERALDO	17/05/00
J	SEE NOTE 'REL. H' AT PAGE 50 A	MONTOYA	BAPTISTA	09/02/2000
H	SEE NOTE 'REL. H' AT PAGE 50 A	FRANCISCO	BAPTISTA	26/10/1999
G	SEE NOTE 'REL. G' AT PAGE 50 A	BATISTA	GERALDO	15/06/1999
F	SEE NOTE 'REL. F' AT PAGE 50A	ROGERIO	GERALDO	11/06/98
E	SEE NOTE 'REL. E' AT PAGE 50A	ROGERIO	GERALDO	9/10/98
D	SEE NOTE 'REL.D' AT PAGE 50A	PABLO	GERALDO	6/18/98
C	SEE NOTE 'REL.C' AT PAGE 50A	PABLO	SILVIO	05/28/98
B	SEE NOTE 'REL.B' AT PAGE 50A	PABLO	SILVIO	06/11/97

DESCRIPTION: ELECTR. DIAGR. EZPATH-SD V1.0 DX-32R

DESIGNED	PABLO	09/04/1997	PROJECTION
DRAWER	PABLO	09/04/1997	SIZE A3
CONTROLLED	SILVIO	09/10/1997	

REFERENCE	SHEET	SCALE	APPLICATION	N° R78514 N
	0A / 3-	1:1	EZPATH-SD V1.0	

CUSTOMER RAMIFICATION INPUT LINE

LATHE	POWER (KVA)	VOLTAGE (VAC)	CURRENT (A)	CB-1 AJUST	WIRES GAGES (mm^2 /AWG)
EZPATH-I SD	20	200	60	0.95	16 / 6
		210	60	0.95	16 / 6
		220	60	0.95	16 / 6
		230	55	0.87	16 / 6
		240	55	0.87	16 / 6
		260	52	0.83	10 / 8
		360	35	0.88	4 / 12
		380	35	0.88	4 / 12
		400	35	0.88	4 / 12
		420	32	0.80	4 / 12
		440	32	0.80	4 / 12
		460	32	0.80	4 / 12
		480	32	0.80	4 / 12
EZPATH-II SD	25	200	80	1.00	16 / 6
		210	80	1.00	16 / 6
		220	80	1.00	16 / 6
		230	68	0.85	16 / 6
		240	68	0.85	16 / 6
		260	68	0.85	16 / 6
		360	40	1.00	6 / 10
		380	40	1.00	6 / 10
		400	40	1.00	6 / 10
		420	40	1.00	4 / 12
		440	36	0.90	4 / 12
		460	36	0.90	4 / 12
		480	34	0.85	4 / 12

* THOSE WIRES GAGES ARE SPECIFIED FOR 100FT (30m) BEETWEN THE MACHINE AND THE POWER SUPPLY

REL.	MODIFICATION	MODIF.	APROV.	DATE
D	SEE NOTE 'RELH' AT PAGE 50A	FRANCISCO	BAPTISTA	10/25/98
C	SEE NOTE 'RELD' AT PAGE 50A	PABLO	GERALDO	6/15/98
B	SEE NOTE 'RELB' AT PAGE 50A	PABLO	SILVIO	06/11/97

DESCRIPTION: CONTROL AC AND DC POWER

DESIGNED	PABLO	09/04/1997	PROJECTION
DRAWER	PABLO	09/04/1997	SIZE A3
CONTROLLED	SILVIO	09/05/1997	

REFERENCE	SHEET	SCALE	APPLICATION	N°
	1A / 1+	1:1	EZPATH-SD V1.0	R78515 D

ROMI®

SAFETY PRECAUTIONS

DANGER

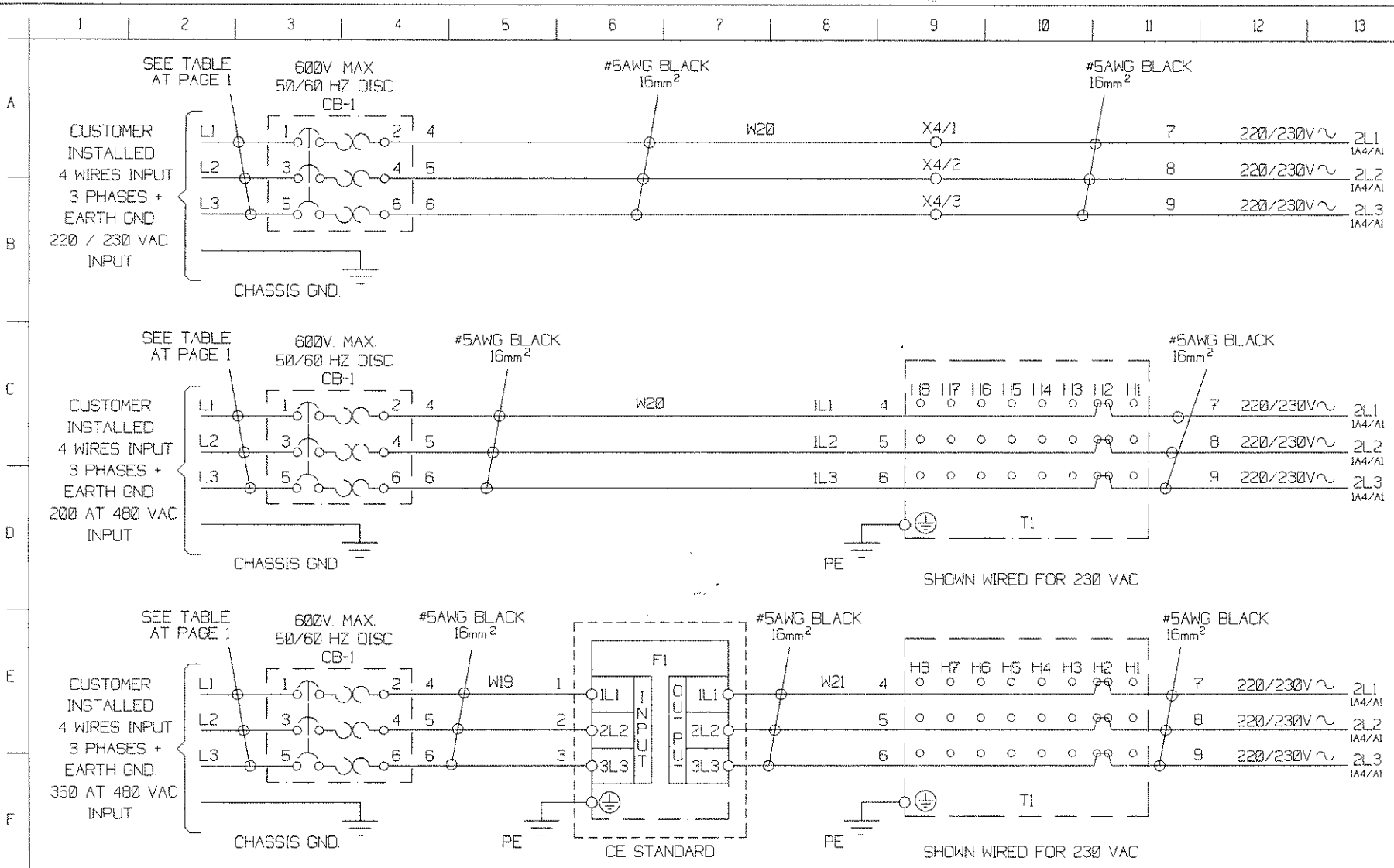
- Some accessible components and terminal main retain voltages even after being disconnected, which may cause SERIOUS INJURIES and even DEATH.
- Some components may produce high temperatures even after being disconnected, which may cause SERIOUS BURNS if touched.

CAUTION

- Temperature above the ones specified in the machine manuals may in poor operations of internal components.
- This equipment is provide with electrostatic discharge sensitive (ESD) components. Therefore, be very careful and through efficient control try to prevent the generation of static electricity during installation, tests, repairs, etc.

WARNING

- Indústrias Romi S.A., shall not be directly or indirectly liable for any consequential damage caused by poor use and/ or misuse of the equipment of its manufacture.
- Only personal fully acquainted with the equipment and trained for this purpose, should render maintenance service. Always refer to the equipment manuals.
- Special attention should be given when replacing special components as to their removal and replacement method as well as weight and dimensions.



REL	MODIFICATION	MODIF.	APROV.	DATE
D	SEE NOTE 'REL.H' AT PAGE 50A	FRANCISCO	BAPTISTA	10/26/99
C	SEE NOTE 'REL.D' AT PAGE 50A	PABLO	GERALDO	6/18/98
B	SEE NOTE 'REL.B' AT PAGE 50A	PABLO	SILVIO	06/11/97

DESCRIPTION	CONTROL AC AND DC POWER		
DESIGNED	PABLO	09/04/1997	PROJECTION
DRAWER	PABLO	09/04/1997	SIZE A3
CONTROLLED	SILVIO	09/05/1997	
REFERENCE	SHEET 1A / 2+	SCALE 1:1	APPLICATION EZPATH-SO V1.0

N° R78515 D

NOTE 1: ALL WIRES USED FOR GND CONNECTIONS MUST BE OF THE SAME GAGE OF THE POWER WIRES USED TO CONNECT ANY DEVICE.

NOTE 2: ALL WIRE GAGES ARE AS MARKED FOR THOSE NOT MARKED USE 0$5mm^2$ OR USE 0.25mm^2.

NOTE 3: ALL ENCODER CABLES AND ANALOG CABLES ARE DEDICATED AND SHIELDED

NOTE 4: THIS TRANSFORMER NAMED T1 IS AN AUTOTRANSFORMER AND ANY INPUT CAN BE AN OUTPUT AS LONG AS THE RATED CURRENT IS NOT EXCEEDED.

THE 220/230 VCA CONNECTION IN ACCORDANCE WITH THE TRANSFORMER INPUT REFERENCE OF THE CB1-T1 CABLE. X4 WILL BE CONNECTED OF THE SUBSEQUENT FORM :

T1 IN - R ---------> X4/1
T1 IN - S ---------> X4/2
T1 IN - T ---------> X4/3

EZPATH-I	FOR 200-260 VAC USE A 50/63 AMP DISCONNECT (CB-1) FOR 360-480 VAC USE A 32/40 AMP DISCONNECT (CB-1)
EZPATH-II	FOR 200-260 VAC USE A 64/80 AMP DISCONNECT (CB-1) FOR 360-480 VAC USE A 32/40 AMP DISCONNECT (CB-1)

TRANSFORMER T1 CONNECTIONS

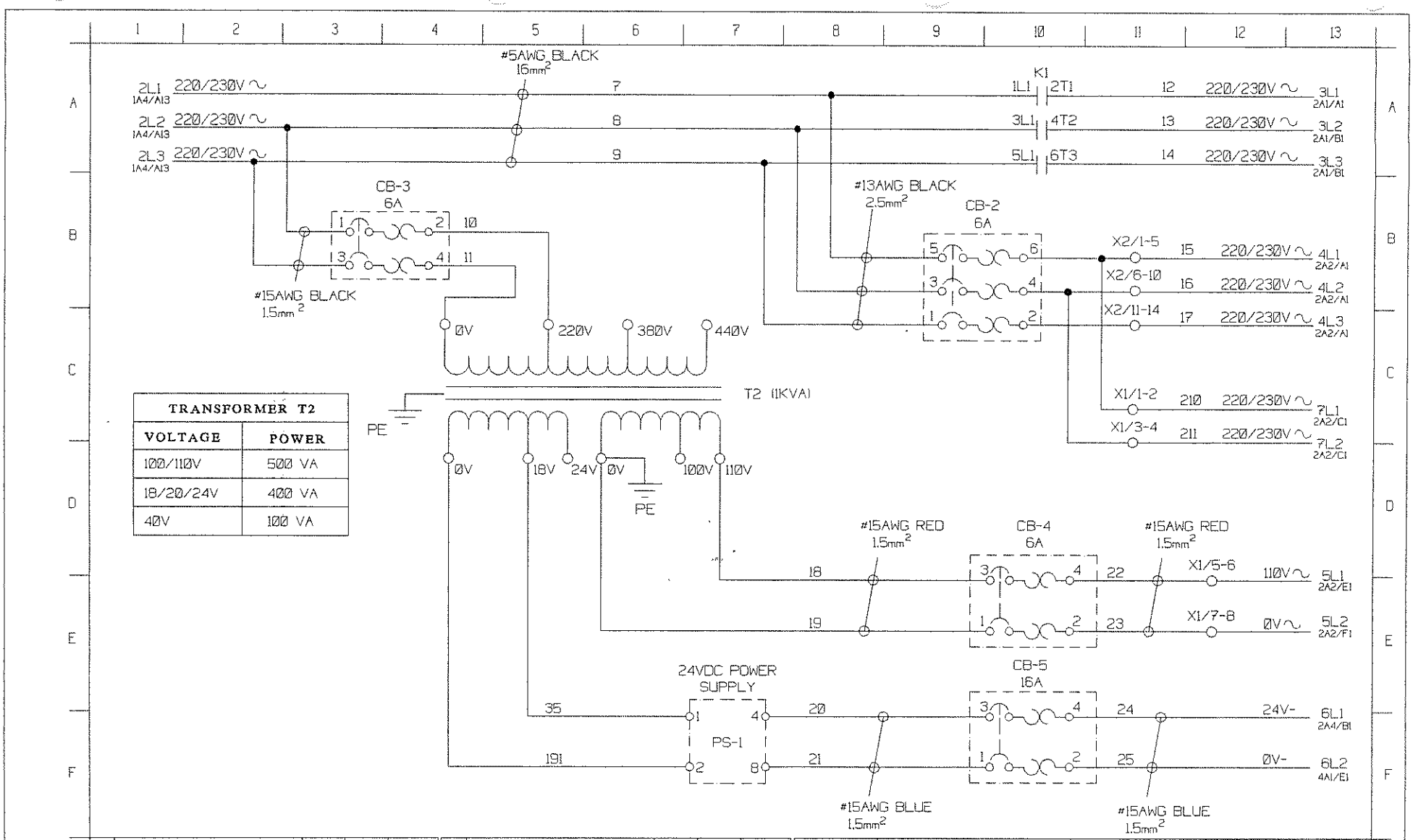
TERMINAL	VOLTAGE	AMPS	
		20KVA	25KVA
H1	200/210	72/68	90/85
H2	220/230	65/62	82/78
H3	240/260	60/55	75/69
H4	360/380	40/37	50/47
H5	380/400	37/36	47/45
H6	420/440	34/32	43/41
H7	440/460	32/31	41/39
H8	460/480	31/30	39/37

REL.	MODIFICATION	MODIF.	APROV.	DATE
D	SEE NOTE 'REL.H' AT PAGE 50A	FRANCISCO	BAPTISTA	10/26/98
C	SEE NOTE 'REL.D' AT PAGE 50A	PABLO	GERALDO	6/18/98
B	SEE NOTE 'REL.B' AT PAGE 50A	PABLO	SILVIO	05/11/97

DESCRIPTION: CONTROL AC AND DC POWER

DESIGNED	PABLO	09/04/1997	PROJECTION
DRAWER	PABLO	09/04/1997	SIZE A3
CONTROLLED	SILVIO	09/05/1997	

REFERENCE	SHEET	SCALE	APPLICATION	N°
	1A / 3+	1:1	EZPATH-SD V1.0	R78515 D

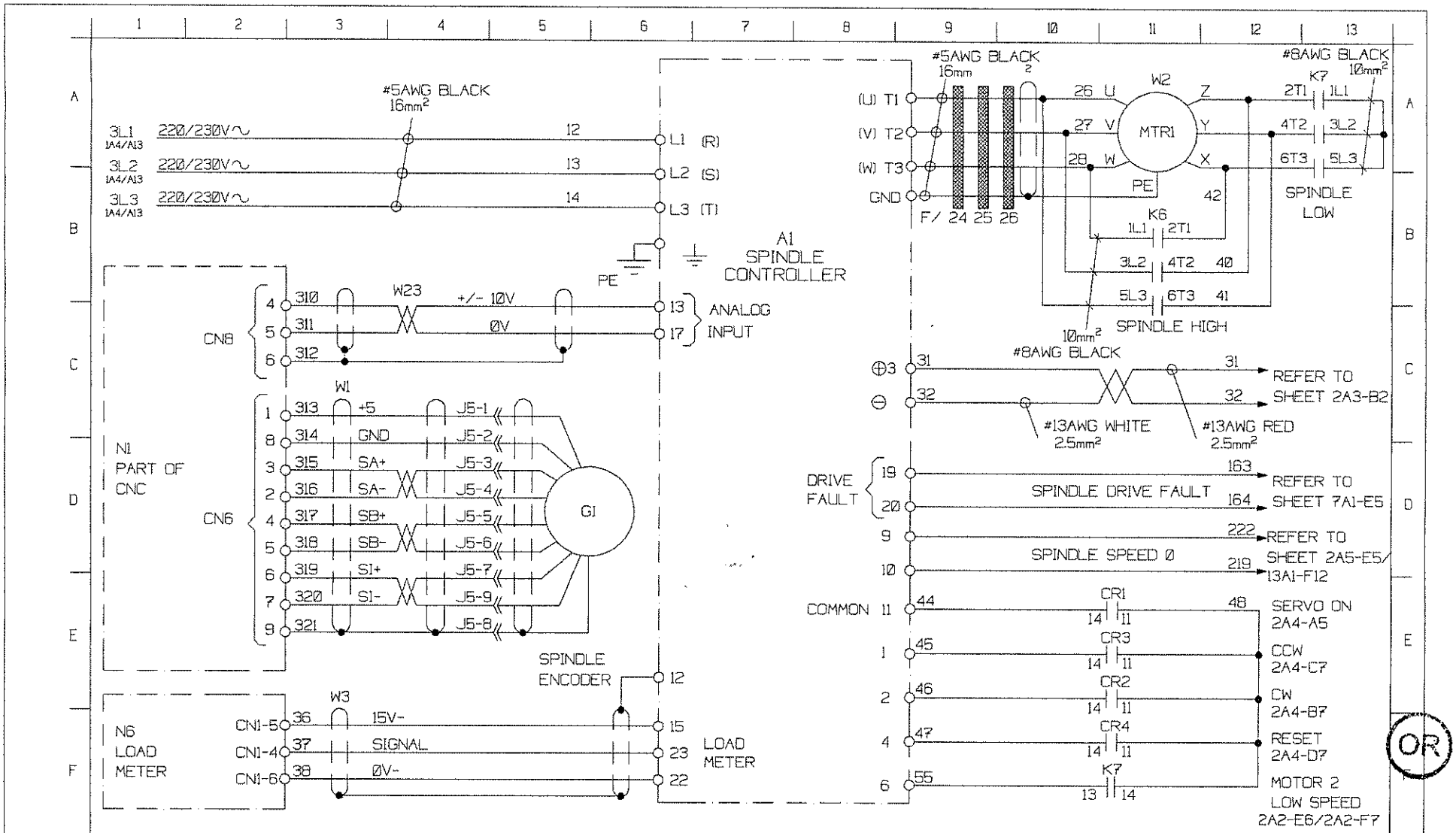


TRANSFORMER T2	
VOLTAGE	POWER
100/110V	500 VA
18/20/24V	400 VA
40V	100 VA

REL	MODIFICATION	MODIF.	APROV.	DATE
D	SEE NOTE 'REL.H' AT PAGE 50A	FRANCISCO	BAPTISTA	10/26/98
C	SEE NOTE 'REL.D' AT PAGE 50A	PABLO	GERALDO	6/18/98
B	SEE NOTE 'REL.B' AT PAGE 50A	PABLO	SILVIO	06/11/97

DESCRIPTION	CONTROL AC AND DC POWER				
	DESIGNED	PABLO	09/04/1997	PROJECTION	SIZE
	DRAWER	PABLO	09/04/1997		A3
	CONTROLLED	SILVIO	09/05/1997		
REFERENCE	SHEET 1A / 4-	SCALE 1:1	APPLICATION EZPATH-SD V1.0	N° R78515 D	

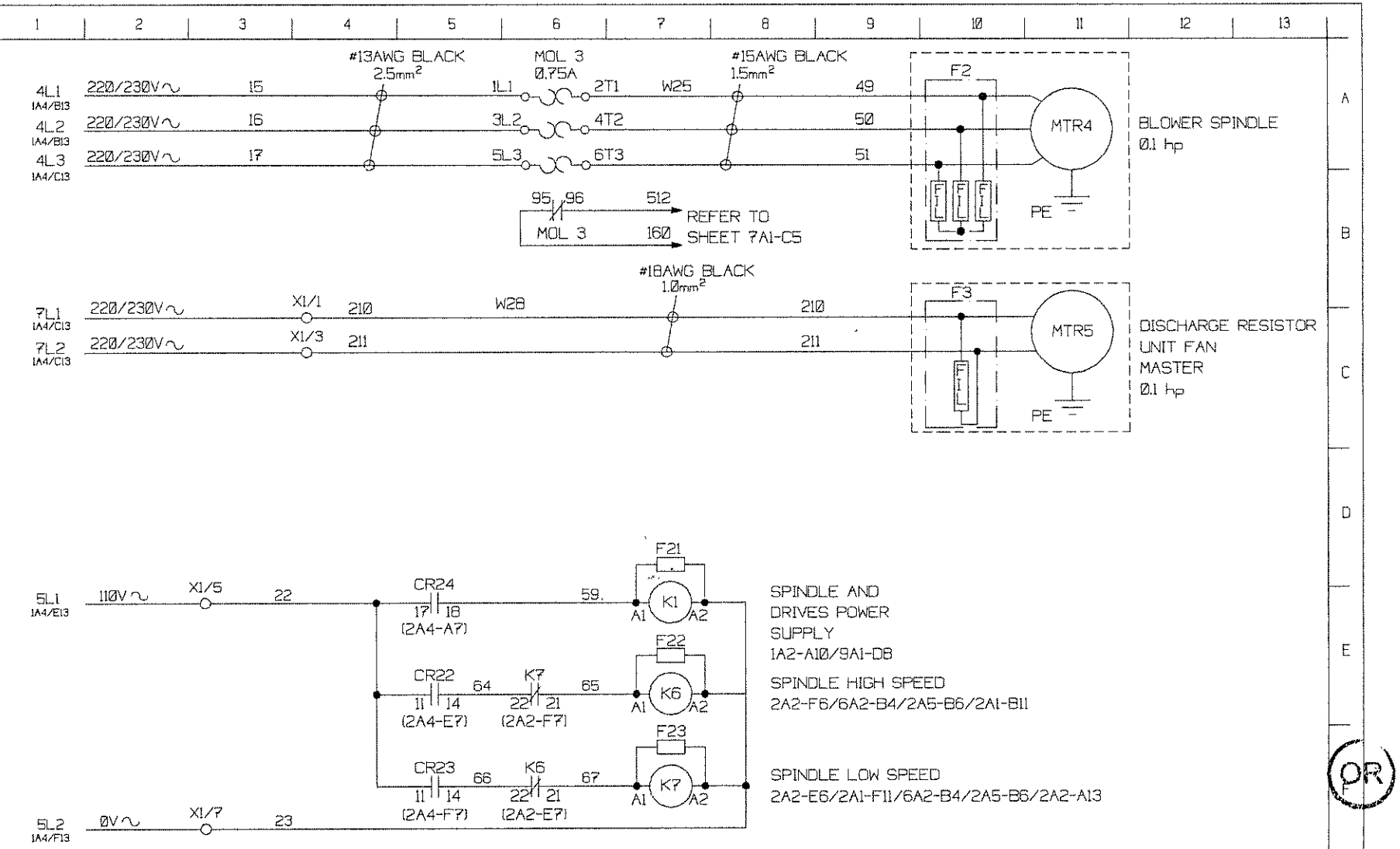
OR



REL	MODIFICATION	MODIF.	APROV.	DATE
G	SEE NOTE 'REL. M' AT PAGE 58A	MARCIO	BAPTISTA	28/03/2001
F	SEE NOTE 'REL. L' AT PAGE 58A	MARCIO	BAPTISTA	28/10/2000
E	SEE NOTE 'RELH' AT PAGE 58A	FRANCISCO	BAPTISTA	10/26/99
D	SEE NOTE 'RELF' AT PAGE 58A	ROGERIO	GERALDO	9/21/98
C	SEE NOTE 'RELD' AT PAGE 58A	PABLO	GERALDO	6/19/98
B	SEE NOTE 'RELB' AT PAGE 58A	PABLO	SILVIO	06/11/97

DESCRIPTION	SPINDLE DRIVE I/O AND POWER			
	DESIGNED	PABLO	10/17/1997	PROJECTION / SIZE
	DRAWER	MAX	10/17/1997	A3
	CONTROLLED	SILVIO	10/17/1997	

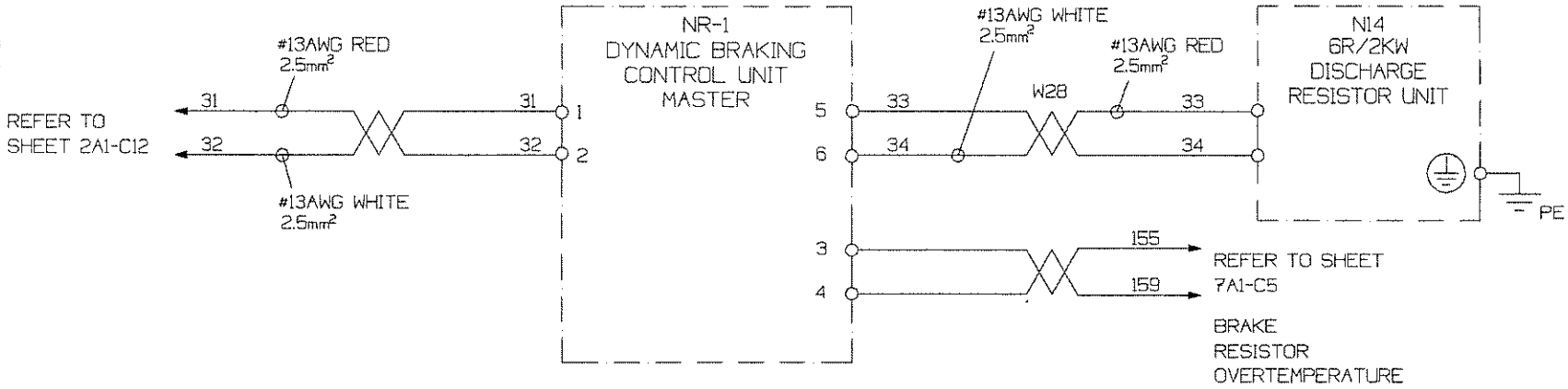
REFERENCE	SHEET	SCALE	APPLICATION	N°R79632 G
	2A / 1+	1 : 1	EZPATH-SD V1.0	



REL	MODIFICATION	MODIF.	APROV.	DATE
G	SEE NOTE 'REL. M' AT PAGE 58A	MARCIO	BAPTISTA	23/03/2001
F	SEE NOTE 'REL. L' AT PAGE 58A	MARCIO	BAPTISTA	28/09/2000
E	SEE NOTE 'REL.H' AT PAGE 58A	FRANCISCO	BAPTISTA	10/28/98
D	SEE NOTE 'REL.F' AT PAGE 58A	ROGERIO	GERALDO	9/21/98
C	SEE NOTE 'REL.D' AT PAGE 58A	PABLO	GERALDO	6/18/98
B	SEE NOTE 'REL.B' AT PAGE 58A	PABLO	SILVIO	26/11/97

DESCRIPTION	SPINDLE DRIVE I/O AND POWER				
	DESIGNED	PABLO	10/17/1997	PROJECTION	SIZE
	DRAWER	MAX	10/17/1997		A3
	CONTROLLED	SILVIO	10/17/1997		

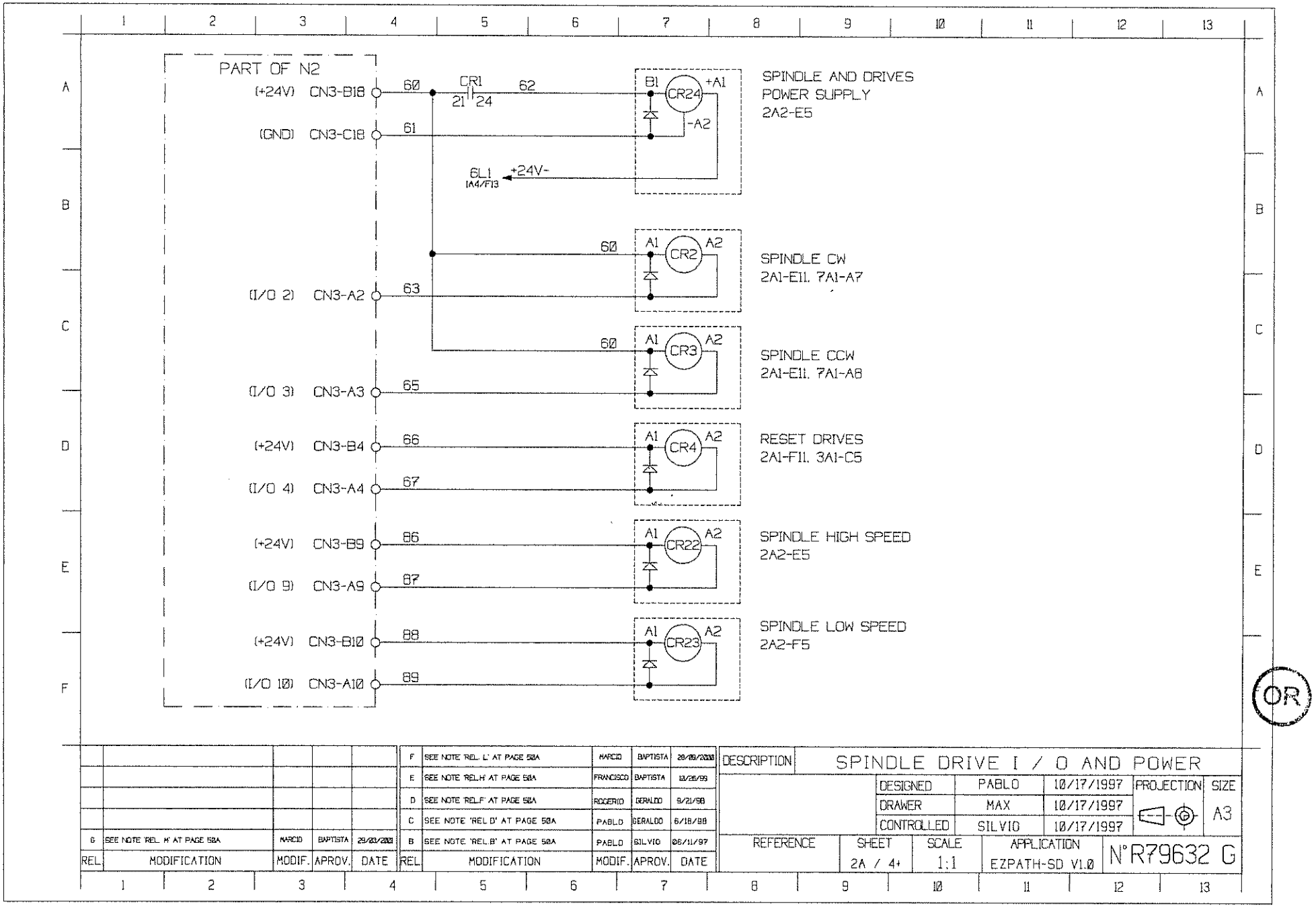
REFERENCE	SHEET	SCALE	APPLICATION	N°R79632 G
	2A / 2+	1:1	EZPATH-SD V1.0	



REL	MODIFICATION	MODIF.	APROV.	DATE
G	SEE NOTE 'REL. N' AT PAGE 50A	MARCIO	BAPTISTA	28/03/2001
B	SEE NOTE 'REL.B' AT PAGE 50A	PABLO	SILVIO	06/11/97
C	SEE NOTE 'REL.D' AT PAGE 50A	PABLO	GERALDO	6/18/98
D	SEE NOTE 'REL.F' AT PAGE 50A	ROGERIO	GERALDO	9/21/98
E	SEE NOTE 'REL.H' AT PAGE 50A	FRANCISCO	BAPTISTA	12/25/98
F	SEE NOTE 'REL. L' AT PAGE 50A	MARCIO	BAPTISTA	28/05/2000

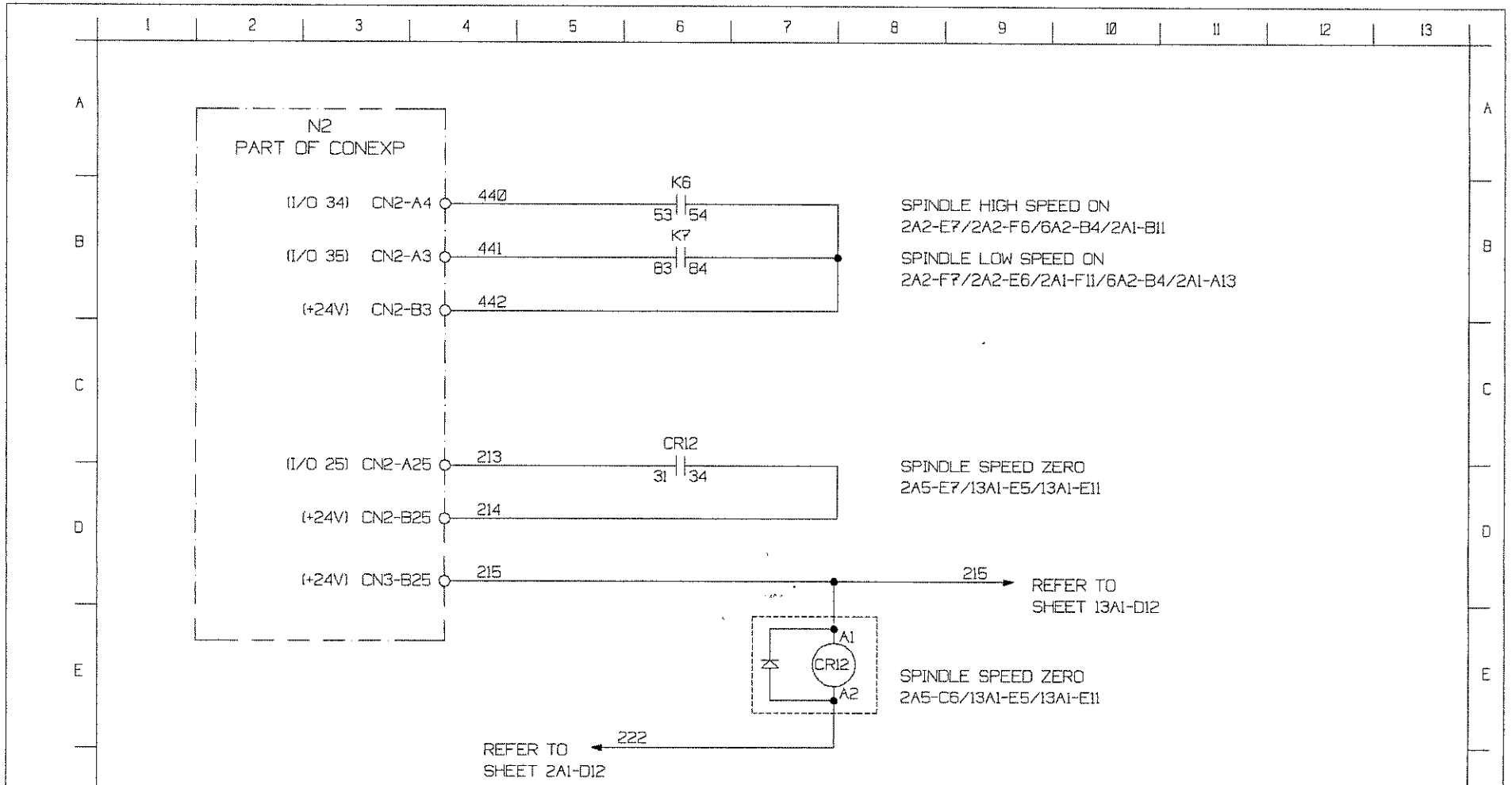
DESCRIPTION	SPINDLE DRIVE I / O AND POWER		
DESIGNED	PABLO	10/17/1997	PROJECTION
DRAWER	MAX	10/17/1997	SIZE A3
CONTROLLED	SILVIO	10/17/1997	
REFERENCE	SHEET 2A / 3+	SCALE 1:1	APPLICATION EZPATH-SD V1.0

N°R79632 G



REL	MODIFICATION	MODIF.	APROV.	DATE
G	SEE NOTE 'REL. M' AT PAGE 58A	NARCIO	BAPTISTA	29/03/2001
F	SEE NOTE 'REL. L' AT PAGE 58A	NARCIO	BAPTISTA	28/09/2000
E	SEE NOTE 'REL.H' AT PAGE 58A	FRANCISCO	BAPTISTA	10/26/99
D	SEE NOTE 'REL.F' AT PAGE 58A	ROGERIO	GERALDO	9/21/98
C	SEE NOTE 'REL D' AT PAGE 58A	PABLO	GERALDO	6/18/98
B	SEE NOTE 'REL.B' AT PAGE 58A	PABLO	SILVIO	06/11/97

DESCRIPTION	SPINDLE DRIVE I / O AND POWER		
	DESIGNED	PABLO	10/17/1997
	DRAWER	MAX	10/17/1997
	CONTROLLED	SILVIO	10/17/1997
PROJECTION	SIZE		
	A3		
REFERENCE	SHEET	SCALE	APPLICATION
	2A / 4+	1:1	EZPATH-SD V1.0
N°R79632 G			

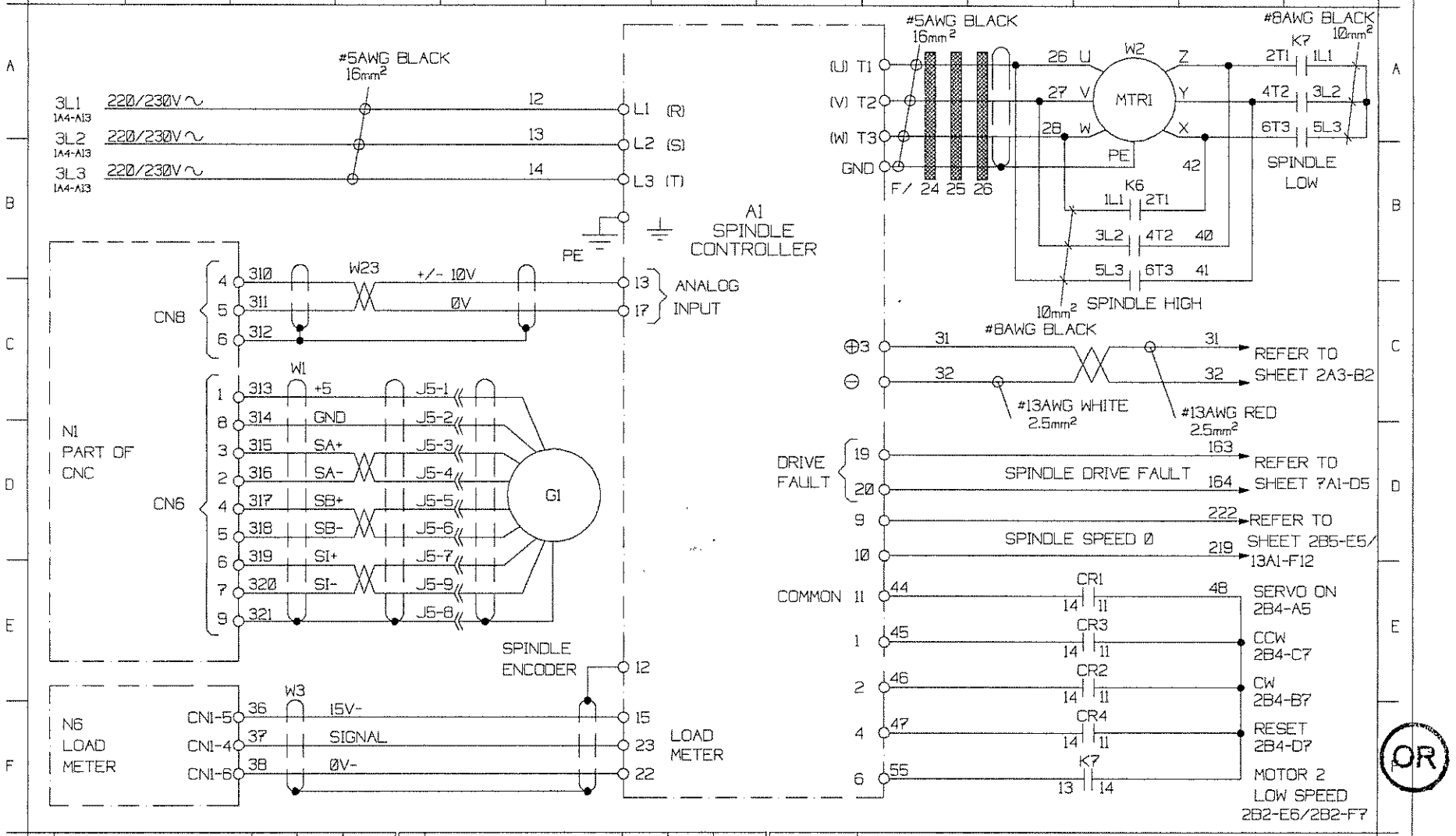


※ CR12 IS ENERGIZED WHEN SPINDLE SPEED IS ZERO.

REL.	MODIFICATION	MODIF.	APROV.	DATE
G	SEE NOTE 'REL. M' AT PAGE 52A	MARCIO	BAPTISTA	29/01/2001
F	SEE NOTE 'REL. L' AT PAGE 52A	MARCIO	BAPTISTA	29/09/2000
E	SEE NOTE 'REL.H' AT PAGE 52A	FRANCISCO	BAPTISTA	10/26/99
D	SEE NOTE 'REL.F' AT PAGE 52A	ROGERIO	GERALDO	9/21/98
C	SEE NOTE 'REL.D' AT PAGE 58A	PABLO	GERALDO	6/18/98
B	SEE NOTE 'REL B' AT PAGE 58A	PABLO	SILVIO	26/11/97

DESCRIPTION	SPINDLE DRIVE I / O AND POWER		
DESIGNED	PABLO	10/17/1997	PROJECTION
DRAWER	MAX	10/17/1997	SIZE A3
CONTROLLED	SILVIO	10/17/1997	
REFERENCE	SHEET 2A / 5-	SCALE 1:1	APPLICATION EZPATH-SD V1.0

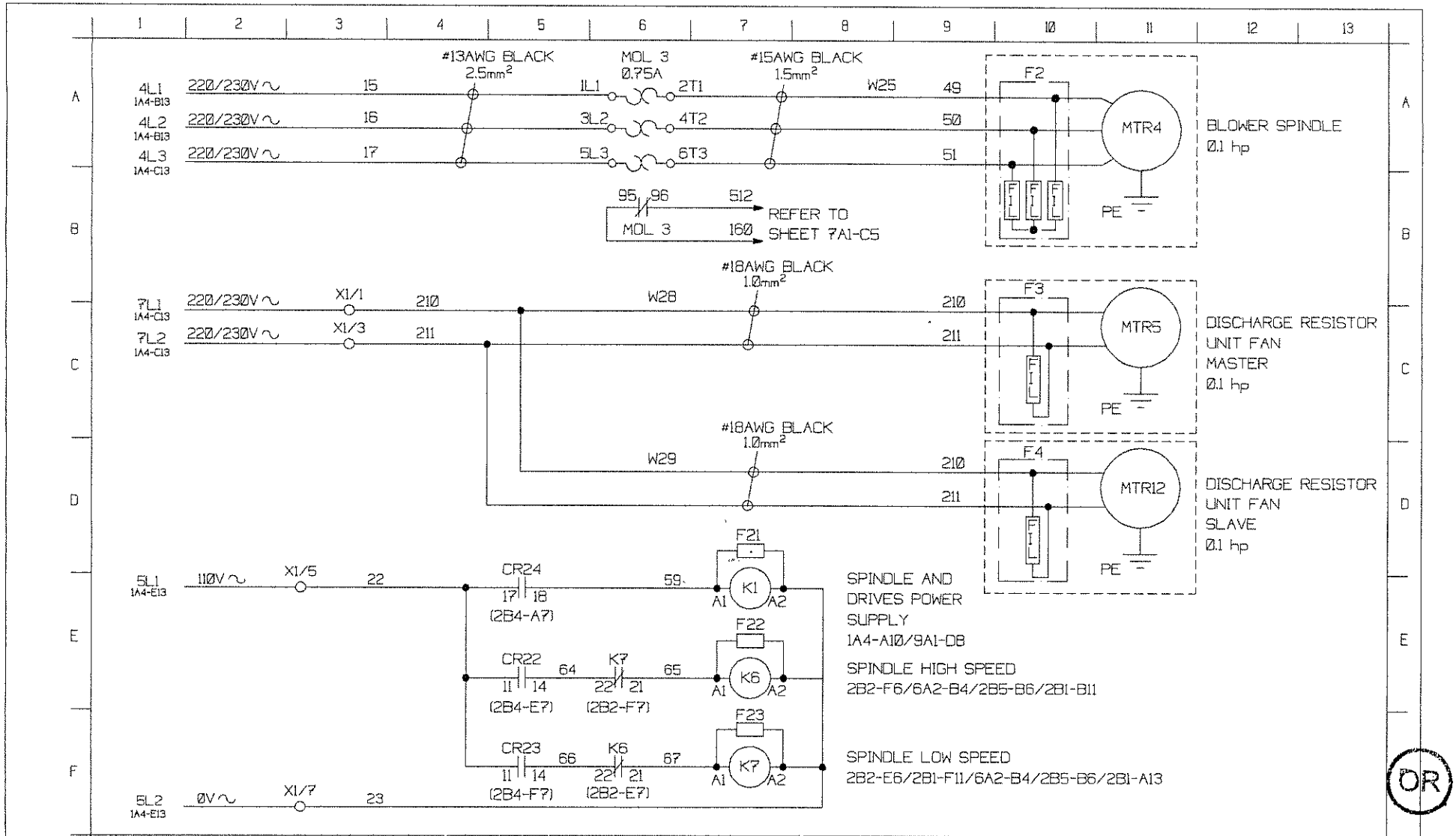
N°R79632 G



REL	MODIFICATION	MODIF.	APROV.	DATE
G	SEE NOTE 'REL. M' AT PAGE 52A	MARCIO	BAPTISTA	29/01/2001
F	SEE NOTE 'REL. L' AT PAGE 52A	MARCIO	BAPTISTA	28/03/2000
E	SEE NOTE 'REL.H AT PAGE 52A	FRANCISCO	BAPTISTA	10/28/99
D	SEE NOTE 'REL.F' AT PAGE 52A	ROGERIO	GERALDO	8/21/98
C	SEE NOTE 'REL.D' AT PAGE 52A	PABLO	GERALDO	6/18/98
B	SEE NOTE 'REL.B' AT PAGE 52A	PABLO	SILVIO	05/11/97

DESCRIPTION	SPINDLE DRIVE I/O AND POWER			
	DESIGNED	PABLO	09/04/1997	PROJECTION / SIZE
	DRAWER	PABLO	09/04/1997	A3
	CONTROLLED	SILVIO	09/05/1997	

REFERENCE	SHEET	SCALE	APPLICATION	N°
	2B / 1+	1 : 1	EZPATH-SD V1.0	R78516 G

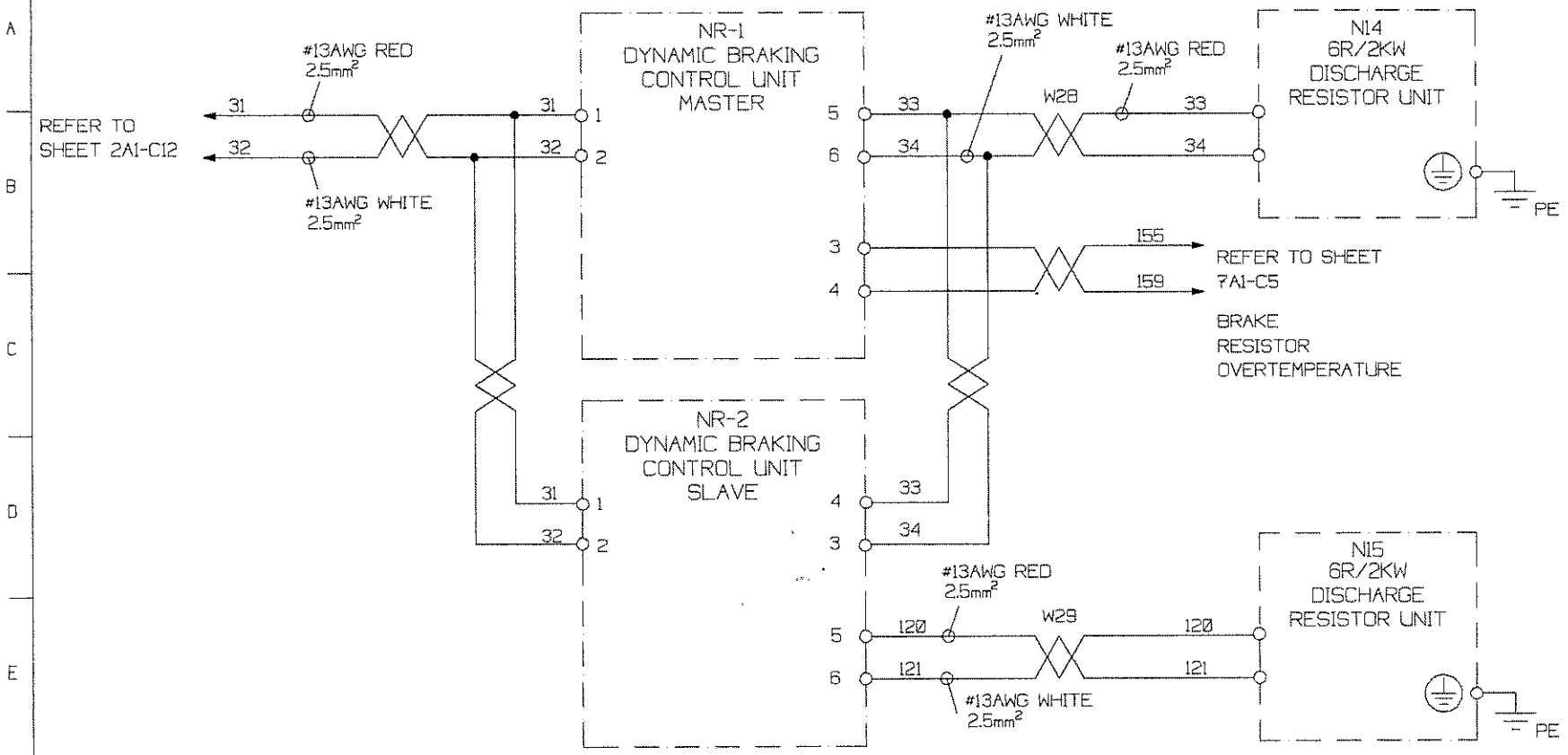


OR

REL	MODIFICATION	MODIF.	APROV.	DATE
G	SEE NOTE 'REL. M' AT PAGE 50A	MARCIO	BAPTISTA	29/03/2001
F	SEE NOTE 'REL. L' AT PAGE 50A	MARCIO	BAPTISTA	28/03/2001
E	SEE NOTE 'REL.H' AT PAGE 50A	FRANCISCO	BAPTISTA	10/28/99
D	SEE NOTE 'REL.F' AT PAGE 50A	ROGERIO	GERALDO	9/21/98
C	SEE NOTE 'REL.D' AT PAGE 50A	PABLO	GERALDO	6/18/98
B	SEE NOTE 'REL.B' AT PAGE 50A	PABLO	SILVIO	06/11/97
REL	MODIFICATION	MODIF.	APROV.	DATE

DESCRIPTION	SPINDLE DRIVE I/O AND POWER		
DESIGNED	PABLO	09/04/1997	PROJECTION
DRAWER	PABLO	09/04/1997	SIZE A3
CONTROLLED	SILVIO	09/05/1997	

REFERENCE	SHEET	SCALE	APPLICATION	N° R78516 G
	2B / 2+	1:1	EZPATH-SD V1.0	

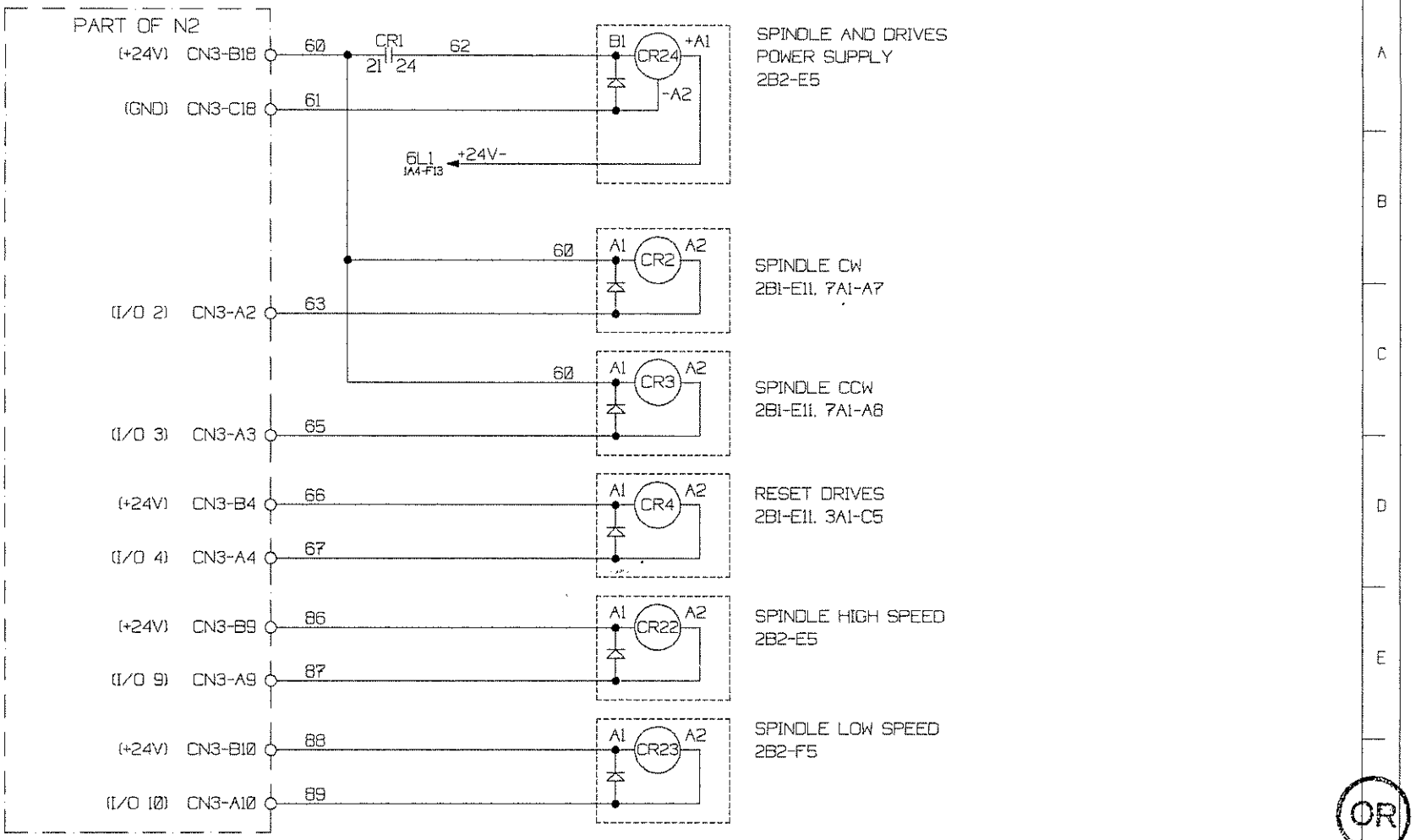


OR

REL.	MODIFICATION	MODIF.	APROV.	DATE
G	SEE NOTE 'REL. M' AT PAGE 58A	MARCIO	BAPTISTA	23/03/2001
F	SEE NOTE 'REL. L' AT PAGE 58A	MARCIO	BAPTISTA	28/09/2000
E	SEE NOTE 'REL.K' AT PAGE 58A	FRANCISCO	BAPTISTA	10/25/98
D	SEE NOTE 'REL.F' AT PAGE 58A	ROGERIO	GERALDO	9/21/98
C	SEE NOTE 'REL.D' AT PAGE 58A	PABLO	GERALDO	6/18/98
B	SEE NOTE 'REL.B' AT PAGE 58A	PABLO	SILVIO	06/11/97
REL.	MODIFICATION	MODIF.	APROV.	DATE

DESCRIPTION	SPINDLE DRIVE I / O AND POWER		
DESIGNED	PABLO	09/04/1997	PROJECTION
DRAWER	PABLO	09/04/1997	SIZE A3
CONTROLLED	SILVIO	09/05/1997	
REFERENCE	SHEET 2B / 3+	SCALE 1:1	APPLICATION EZPATH-SD V1.0

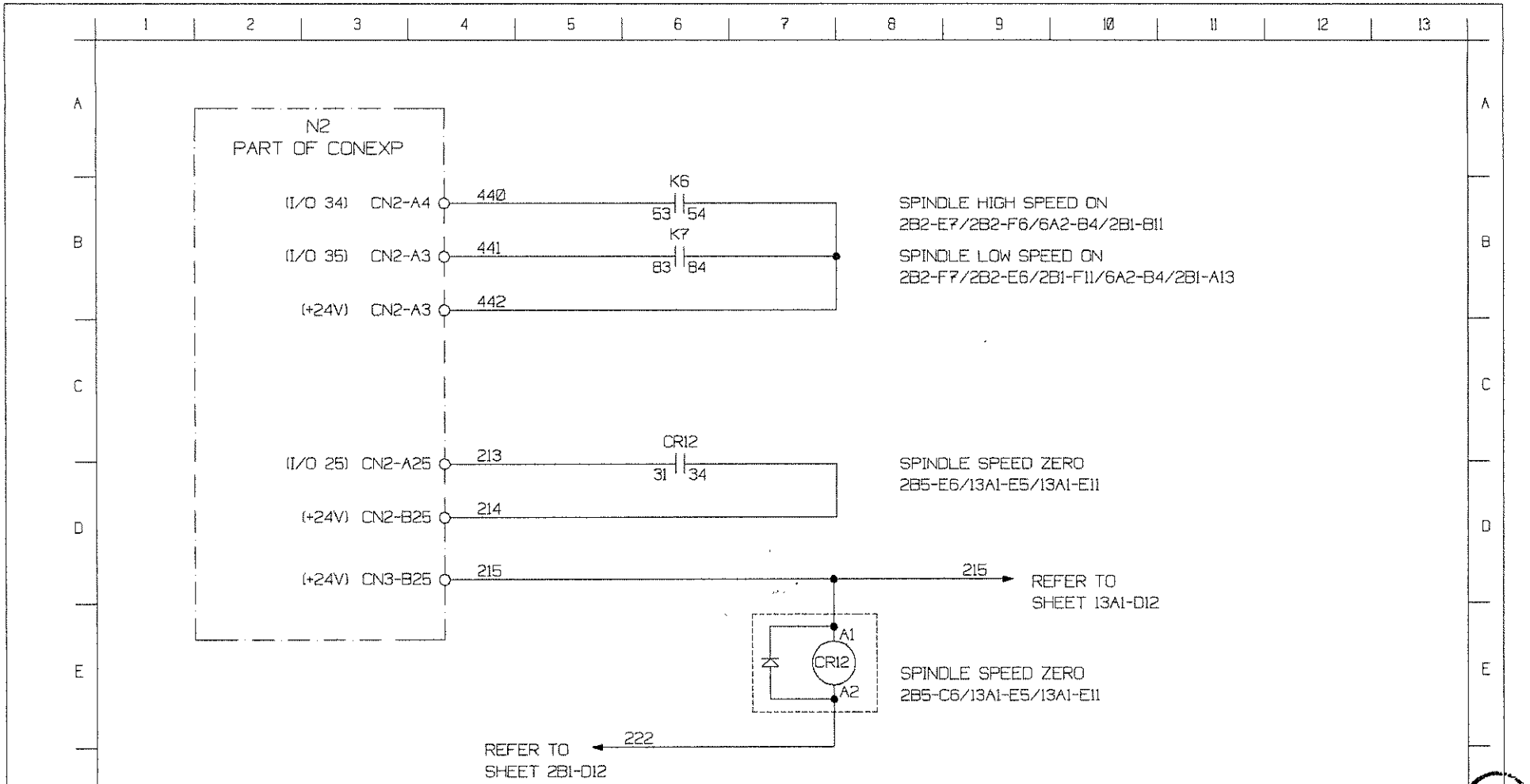
N° R78516 G



REL	MODIFICATION	MODIF.	APROV.	DATE
G	SEE NOTE 'REL. M' AT PAGE 50A	MARCIO	BAPTISTA	23/03/2001
F	SEE NOTE 'REL. L' AT PAGE 52A	MARCIO	BAPTISTA	28/03/2000
E	SEE NOTE 'REL.H' AT PAGE 50A	FRANCISCO	BAPTISTA	10/26/99
D	SEE NOTE 'REL.F' AT PAGE 50A	ROGERIO	GERALDO	9/21/98
C	SEE NOTE 'REL.C' AT PAGE 50A	PABLO	GERALDO	6/18/98
B	SEE NOTE 'REL.B' AT PAGE 50A	PABLO	SILVIO	05/11/97

DESCRIPTION	SPINDLE DRIVE I / O AND POWER			
	DESIGNED	PABLO	09/04/1997	PROJECTION
	DRAWER	PABLO	09/04/1997	SIZE A3
	CONTROLLED	SILVIO	09/05/1997	

REFERENCE	SHEET	SCALE	APPLICATION	N°
	28 / 4+	1:1	EZPATH-SD V1.0	R78516 G

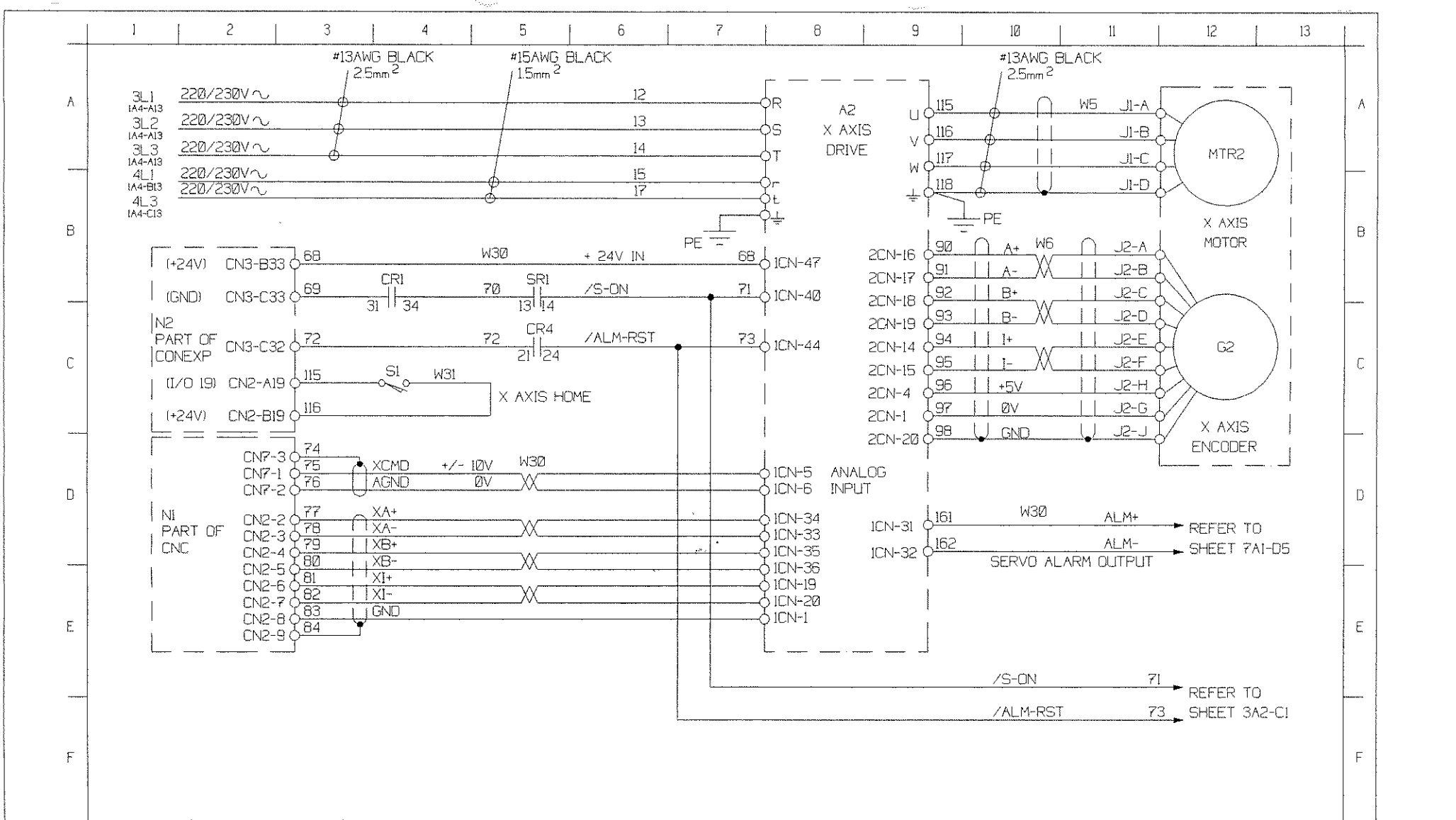


※ CR12 IS ENERGIZED WHEN SPINDLE SPEED IS ZERO.

REL	MODIFICATION	MODIF.	APROV.	DATE
G	SEE NOTE 'REL.G' AT PAGE 58A	MARCIO	BAPTISTA	25/03/2003
F	SEE NOTE 'REL.F' AT PAGE 58A	MARCIO	BAPTISTA	18/26/2003
E	SEE NOTE 'REL.E' AT PAGE 58A	FRANCISCO	BAPTISTA	10/25/99
D	SEE NOTE 'REL.D' AT PAGE 58A	ROGERIO	GERALDO	9/21/98
C	SEE NOTE 'REL.C' AT PAGE 58A	PABLO	GERALDO	6/18/98
B	SEE NOTE 'REL.B' AT PAGE 58A	PABLO	SILVIO	06/11/97

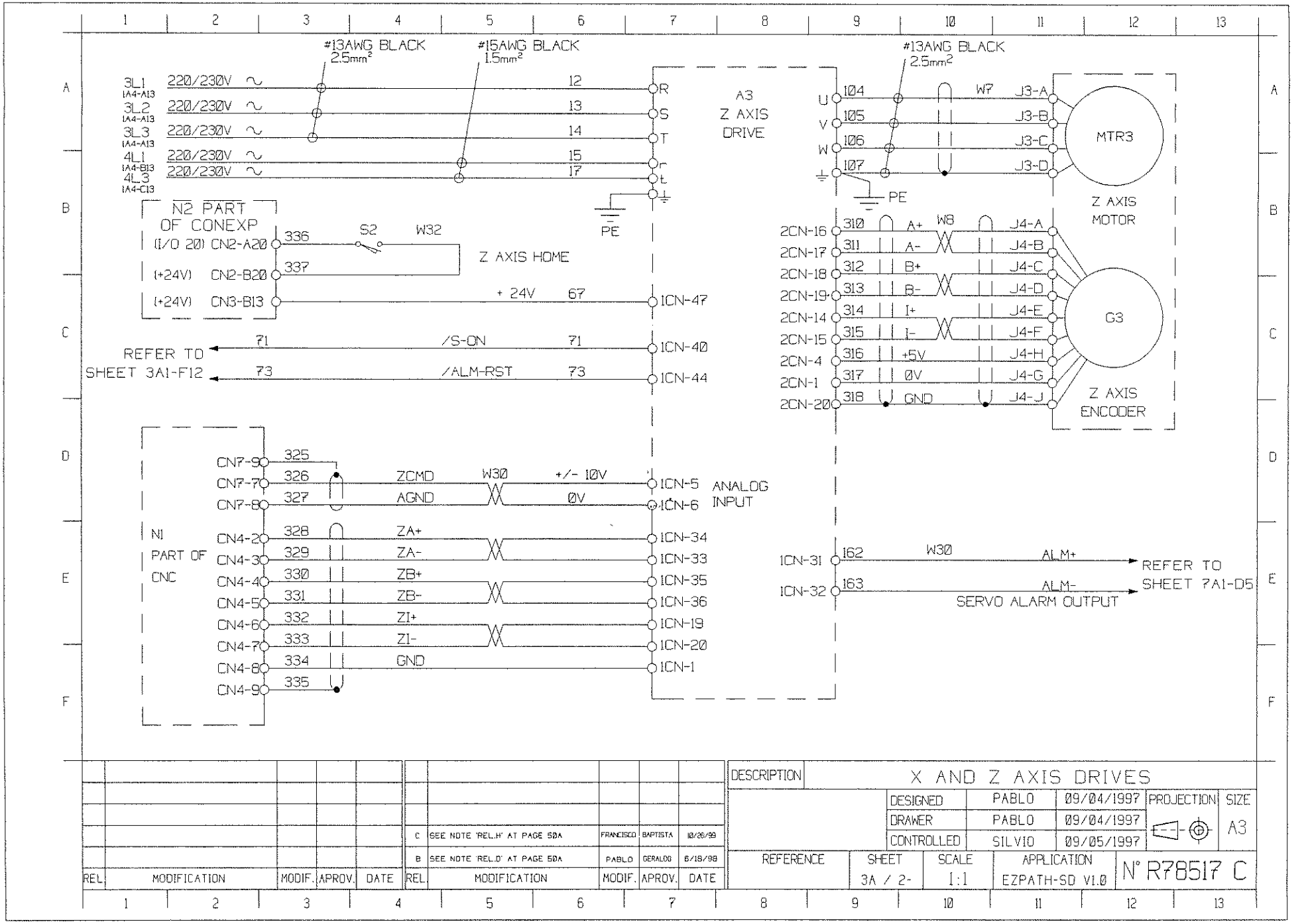
DESCRIPTION	SPINDLE DRIVE I / O AND POWER		
DESIGNED	PABLO	09/04/1997	PROJECTION
DRAWER	PABLO	09/04/1997	SIZE A3
CONTROLLED	SILVIO	09/05/1997	

REFERENCE	SHEET	SCALE	APPLICATION	N° R78516 G
	2B / 5-	1:1	EZPATH-SD V1.0	



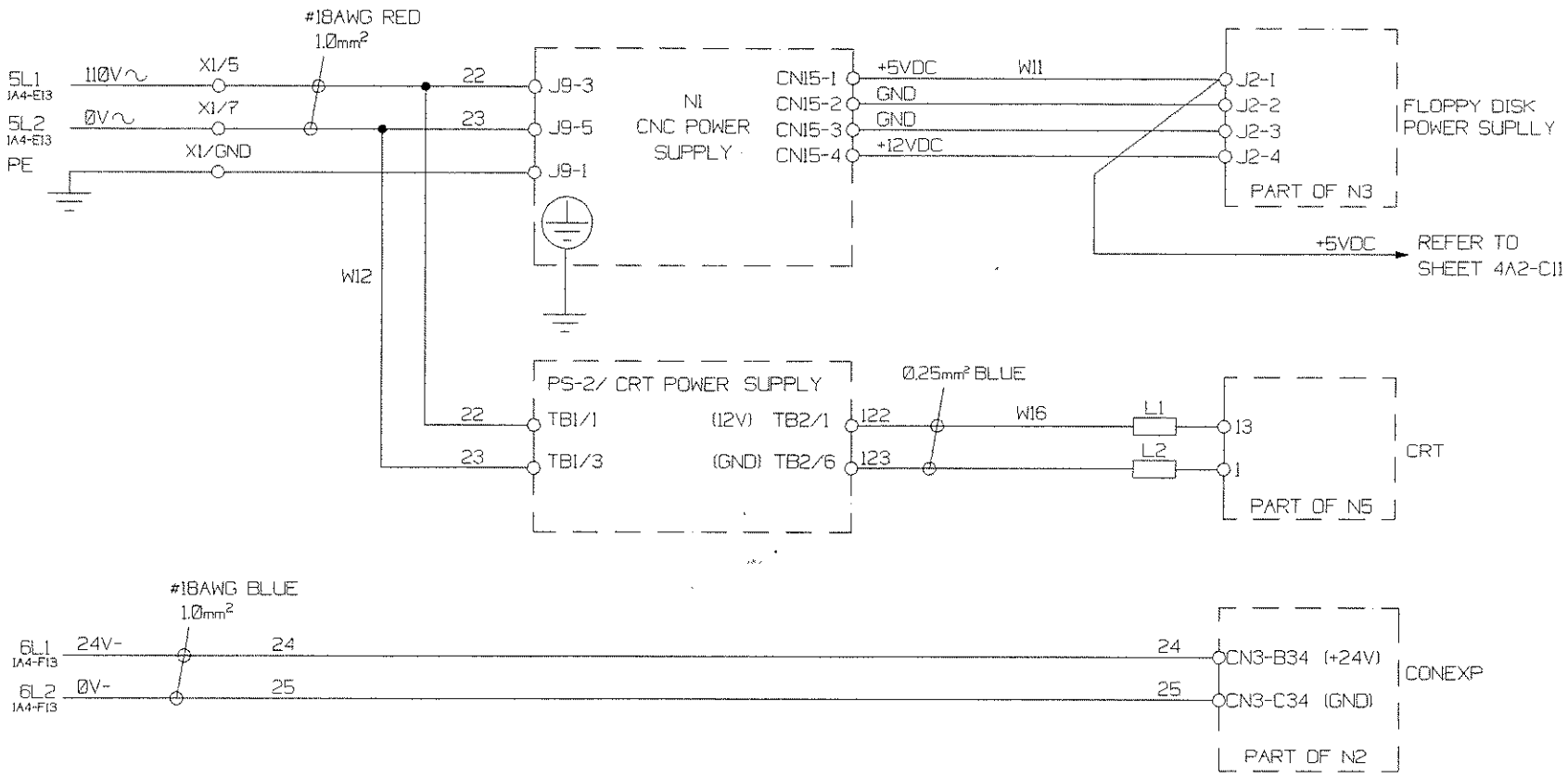
REL	MODIFICATION	MODIF.	APROV.	DATE
C	SEE NOTE 'REL.H' AT PAGE 50A	FRANCISCO	BAPTISTA	10/26/99
B	SEE NOTE 'REL.D' AT PAGE 50A	PABLO	GERALDO	6/18/98

DESCRIPTION	X AND Z AXIS DRIVES				
	DESIGNED	PABLO	09/04/1997	PROJECTION	SIZE
	DRAWER	PABLO	09/04/1997		A3
	CONTROLLED	SILVIO	09/05/1997		
REFERENCE	SHEET 3A / 1+	SCALE 1:1	APPLICATION EZPATH-SO V1.0	N° R78517 C	



REL.	MODIFICATION	MODIF.	APROV.	DATE
C	SEE NOTE 'REL.H' AT PAGE 50A	FRANCISCO	BAPTISTA	10/26/98
B	SEE NOTE 'REL.D' AT PAGE 50A	PABLO	GERALDO	6/18/98

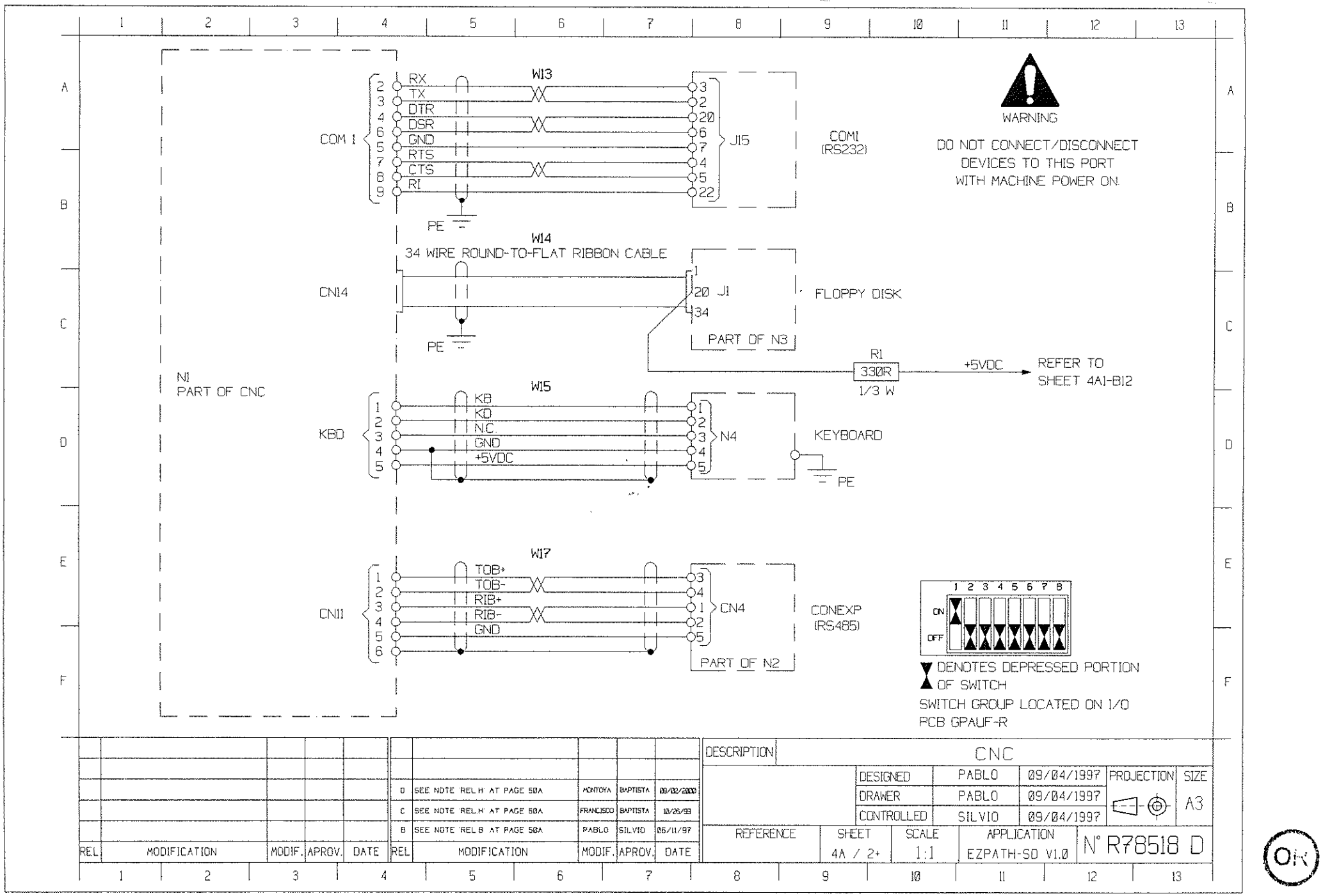
DESCRIPTION	X AND Z AXIS DRIVES			
	DESIGNED	PABLO	09/04/1997	PROJECTION
	DRAWER	PABLO	09/04/1997	SIZE A3
	CONTROLLED	SILVIO	09/05/1997	
REFERENCE	SHEET 3A / 2-	SCALE 1:1	APPLICATION EZPATH-SD V1.0	N° R78517 C



REL	MODIFICATION	MODIF.	APROV.	DATE
D	SEE NOTE 'REL H' AT PAGE 50A	MONTOYA	BAPTISTA	09/02/2000
C	SEE NOTE 'REL H' AT PAGE 50A	FRANCISCO	BAPTISTA	10/20/99
B	SEE NOTE 'REL B' AT PAGE 50A	PABLO	SILVIO	06/11/97

DESCRIPTION	CNC			
	DESIGNED	PABLO	09/04/1997	PROJECTION
	DRAWER	PABLO	09/04/1997	SIZE A3
	CONTROLLED	SILVIO	09/05/1997	
REFERENCE	SHEET 4A / 1+	SCALE 1:1	APPLICATION EZPATH-SD V1.0	N° R78518 D

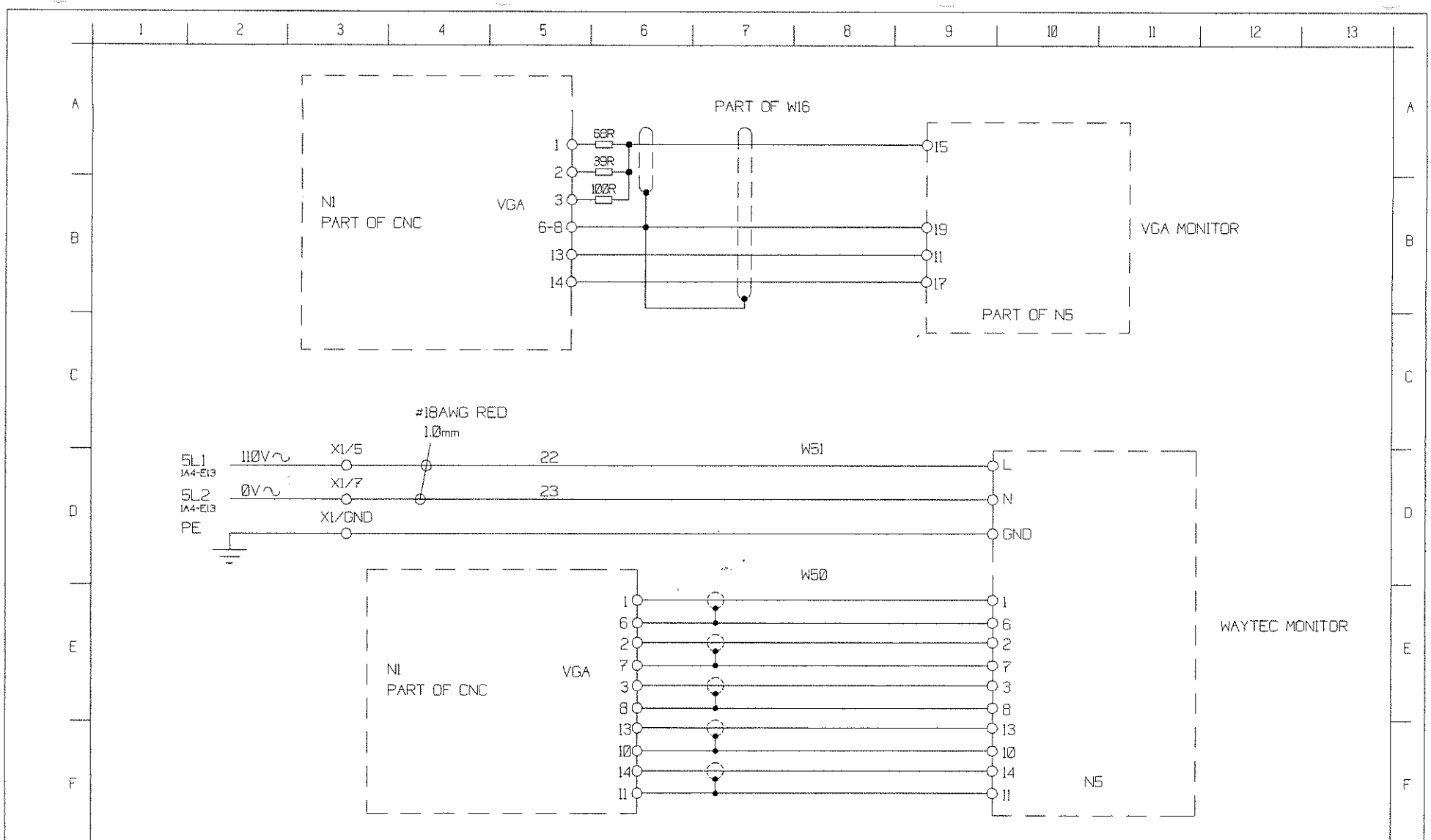
OR



REL	MODIFICATION	MODIF.	APROV.	DATE
D	SEE NOTE 'REL.H' AT PAGE 50A	MONTOYA	BAPTISTA	09/02/2000
C	SEE NOTE 'REL.H' AT PAGE 50A	FRANCISCO	BAPTISTA	10/26/99
B	SEE NOTE 'REL.B' AT PAGE 50A	PABLO	SILVIO	06/11/97

DESCRIPTION	CNC			
	DESIGNED	PABLO	09/04/1997	PROJECTION
	DRAWER	PABLO	09/04/1997	SIZE A3
	CONTROLLED	SILVIO	09/04/1997	
REFERENCE	SHEET 4A / 2+	SCALE 1:1	APPLICATION EZPATH-SD V1.0	N° R78518 D

OK

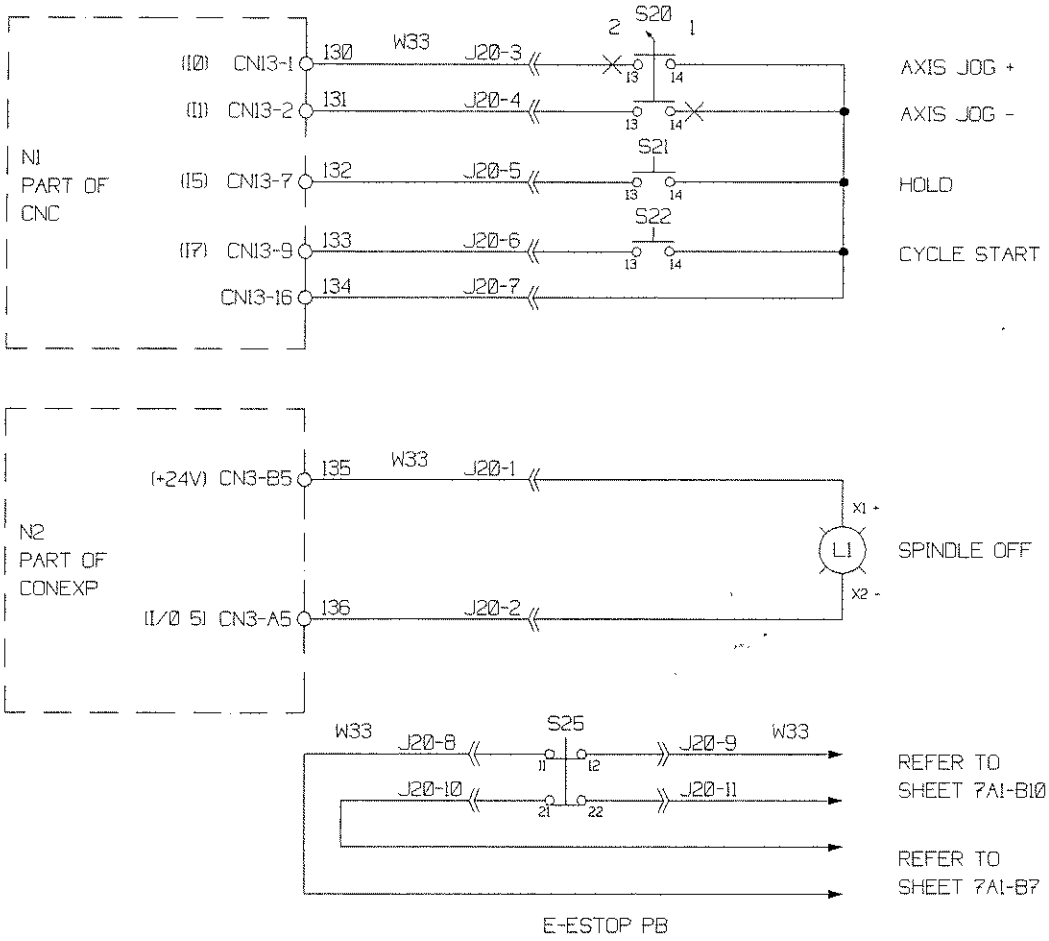


REL.	MODIFICATION	MODIF.	APROV.	DATE
D	SEE NOTE 'REL.H' AT PAGE 50A	MONTOYA	BAPTISTA	09/02/2000
C	SEE NOTE 'REL.H' AT PAGE 50A	FRANCISCO	BAPTISTA	12/26/99
B	SEE NOTE 'REL.B' AT PAGE 50A	PABLO	SILVIO	06/11/97

DESCRIPTION	CNC		
DESIGNED	PABLO	09/04/1997	PROJECTION
DRAWER	PABLO	09/04/1997	SIZE A3
CONTROLLED	SILVIO	09/05/1997	
REFERENCE	SHEET 4A / 3-	SCALE 1:1	APPLICATION EZPATH-SD V1.0

N° R78518 D

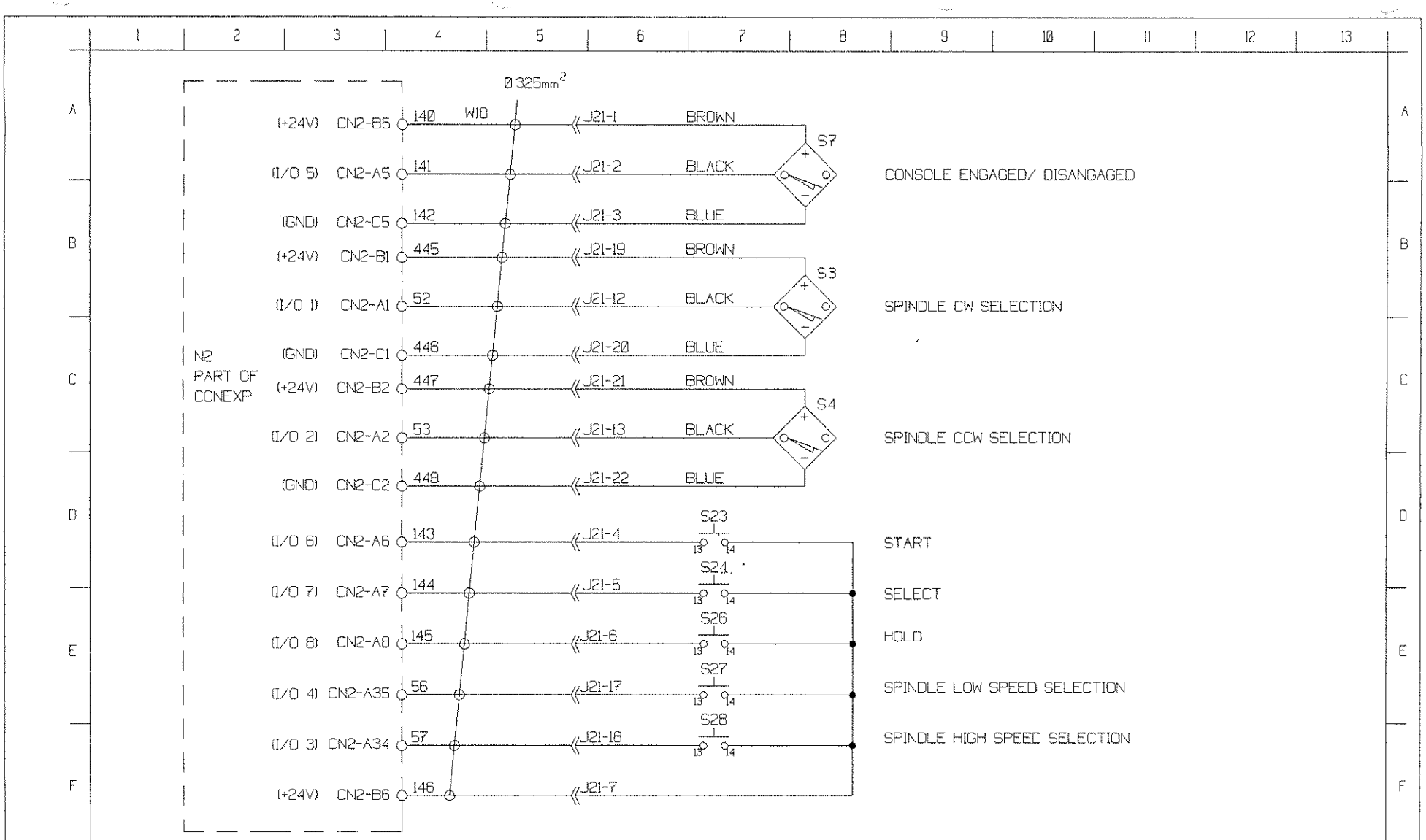
OR



REL.	MODIFICATION	MODIF.	APROV.	DATE

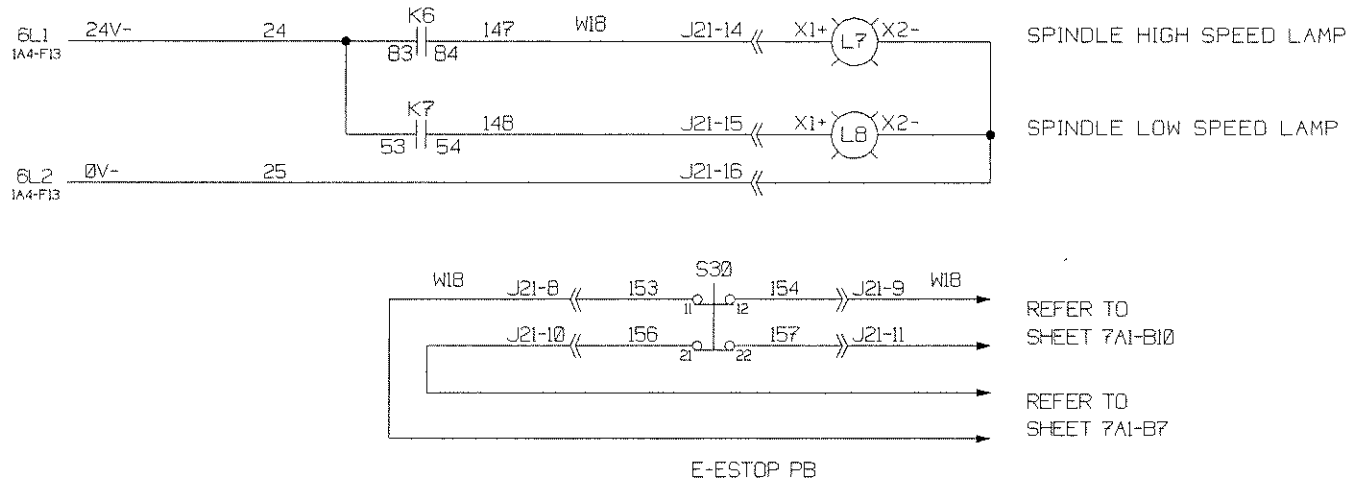
REL.	MODIFICATION	MODIF.	APROV.	DATE
B	SEE NOTE "RELAY" AT PAGE 5BA	FRANCISCO	BAPTISTA	12/26/98

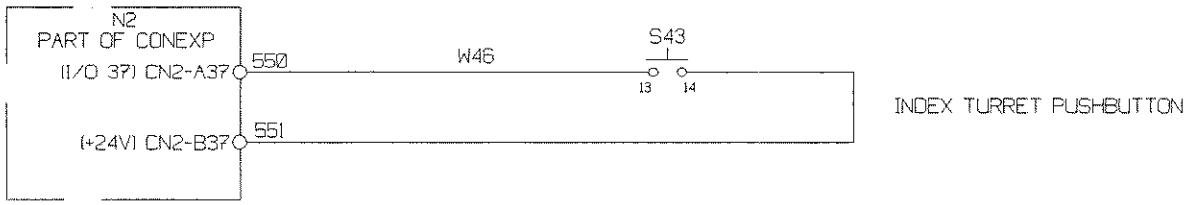
DESCRIPTION	CONTROL PANEL				
	DESIGNED	PABLO	09/04/1997	PROJECTION	SIZE
	DRAWER	PABLO	09/04/1997		A3
	CONTROLLED	SILVIO	09/05/1997		
REFERENCE	SHEET 5A / 1-	SCALE 1:1	APPLICATION EZPATH-SD V1.0	N° R78519 B	



REL.	MODIFICATION	MODIF.	APROV.	DATE
E	SEE NOTE 'REL.H' AT PAGE 58A	FRANCISCO	BAPTISTA	10/26/98
D	SEE NOTE 'REL.D' AT PAGE 58A	PABLO	GERALDO	6/18/98
C	SEE NOTE 'REL.C' AT PAGE 58A	PABLO	SILVIO	1/28/98
B	SEE NOTE 'REL.B' AT PAGE 58A	PABLO	SILVIO	08/11/97

DESCRIPTION	REMOTE CONTROL PANEL				
	DESIGNED	PABLO	09/04/1997	PROJECTION	SIZE
	DRAWER	PABLO	09/04/1997		A3
	CONTROLLED	SILVIO	09/05/1997		
REFERENCE	SHEET 6A / 1+	SCALE 1:1	APPLICATION EZPATH-SD V1.0	N°R78520 E	



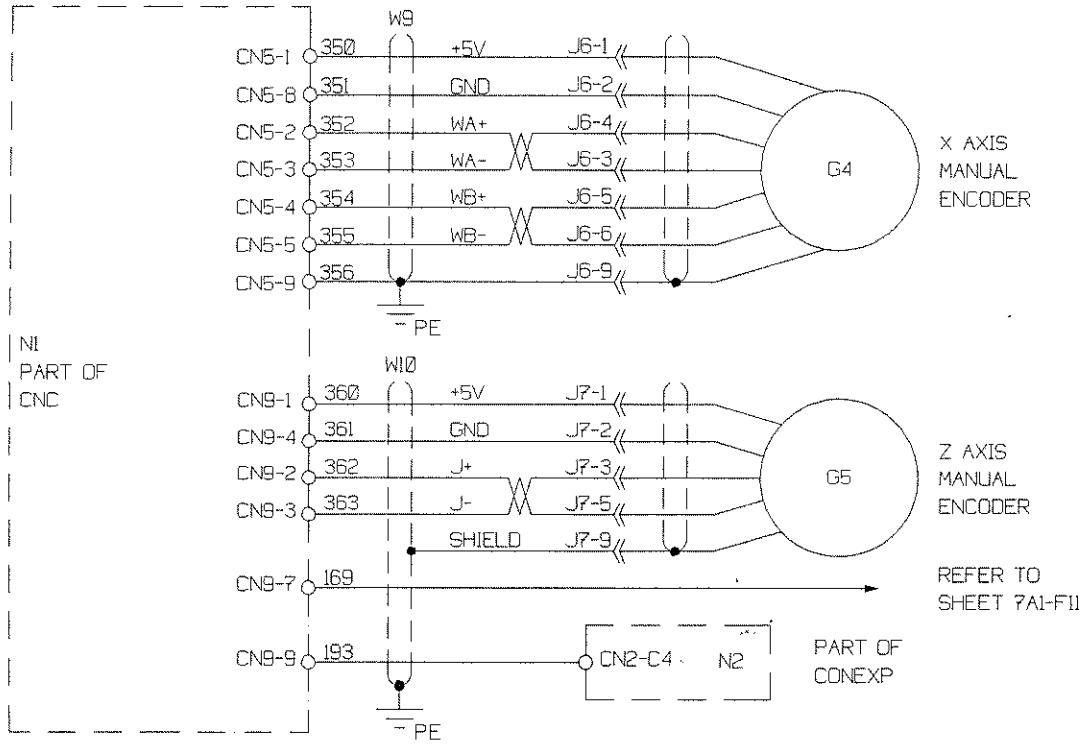


REL	MODIFICATION	MODIF.	APROV.	DATE
E	SEE NOTE 'REL.H' AT PAGE 50A	FRANCISCO	BAPTISTA	10/26/98
D	SEE NOTE 'REL.D' AT PAGE 50A	PABLO	GERALDO	6/18/98
C	SEE NOTE 'REL.C' AT PAGE 50A	PABLO	SILVIO	1/28/98
B	SEE NOTE 'REL.B' AT PAGE 50A	PABLO	SILVIO	06/11/97

DESCRIPTION	REMOTE CONTROL PANEL			
	DESIGNED	PABLO	09/04/1997	PROJECTION
	DRAWER	PABLO	09/04/1997	SIZE A3
	CONTROLLED	SILVIO	09/05/1997	

REFERENCE	SHEET	SCALE	APPLICATION	N°R78520 E
	6A / 2+	1:1	EZPATH-SD V1.0	

OR

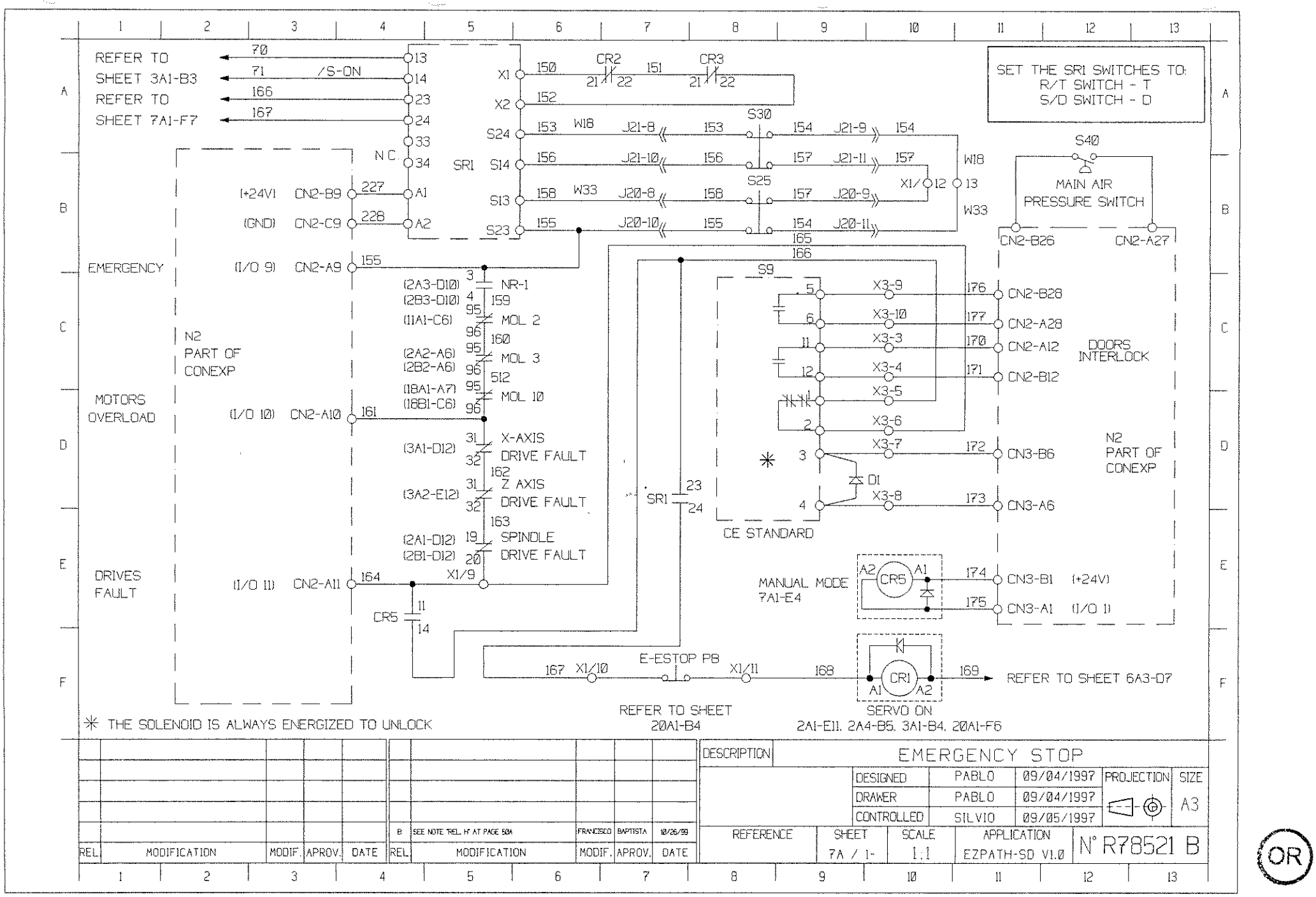


REL.	MODIFICATION	MODIF.	APROV.	DATE
E	SEE NOTE 'REL.H' AT PAGE 50A	FRANCISCO	BAPTISTA	10/25/99
D	SEE NOTE 'REL.D' AT PAGE 50A	PABLO	GERALDO	6/18/98
C	SEE NOTE 'REL.C' AT PAGE 50A	PABLO	SILVIO	1/28/98
B	SEE NOTE REL.B AT PAGE 50A	PABLO	SILVIO	08/11/97

DESCRIPTION	REMOTE CONTROL PANEL			
	DESIGNED	PABLO	09/04/1997	PROJECTION
	DRAWER	PABLO	09/04/1997	SIZE A3
	CONTROLLED	SILVIO	09/05/1997	

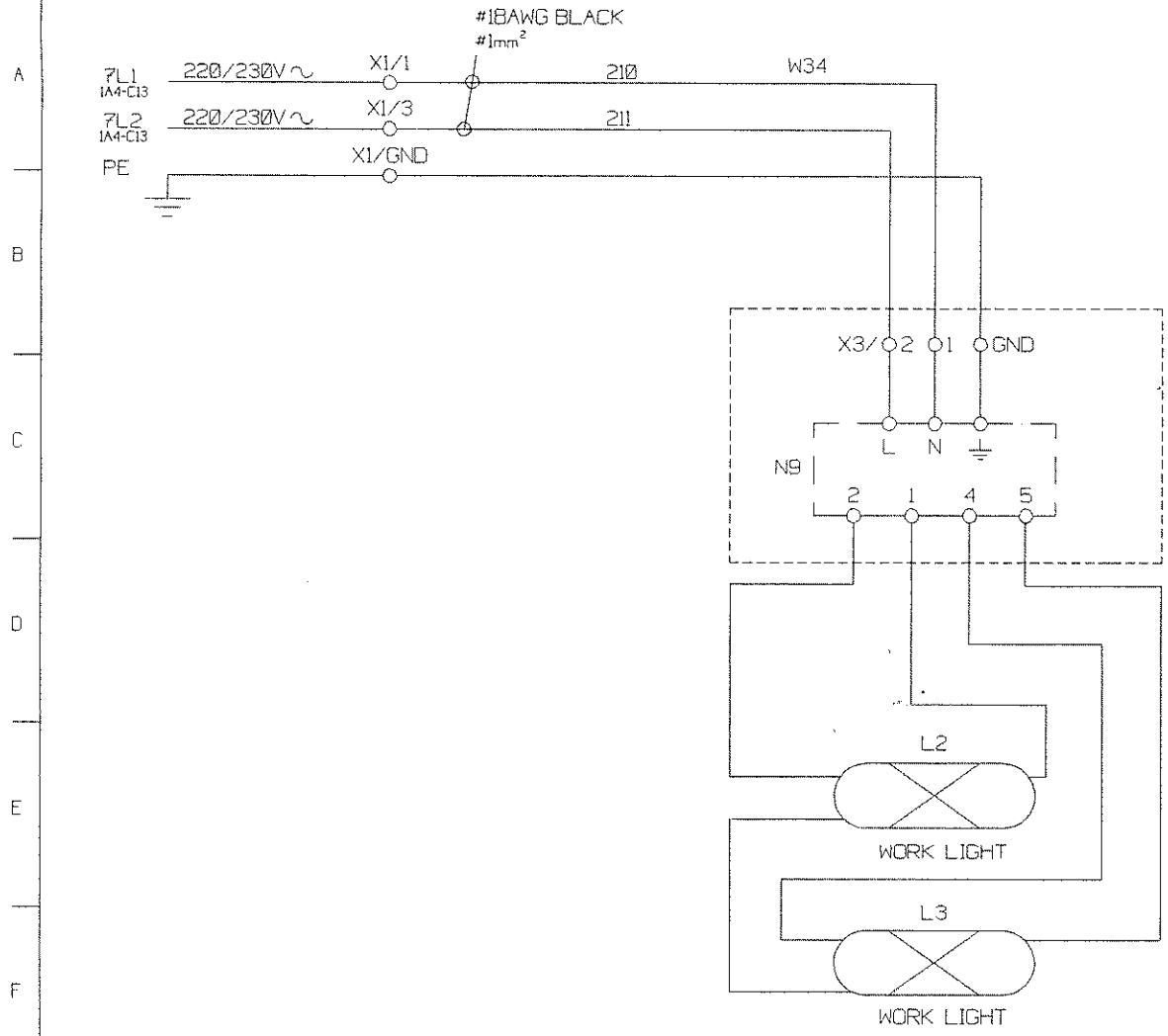
REFERENCE	SHEET	SCALE	APPLICATION	N°R78520 E
	6A / 3-	1:1	EZPATH-SD V1.0	

OR



REL.	MODIFICATION	MODIF.	APROV.	DATE
B	SEE NOTE "REL. H" AT PAGE 50A	FRANCISCO	BAPTISTA	10/26/99

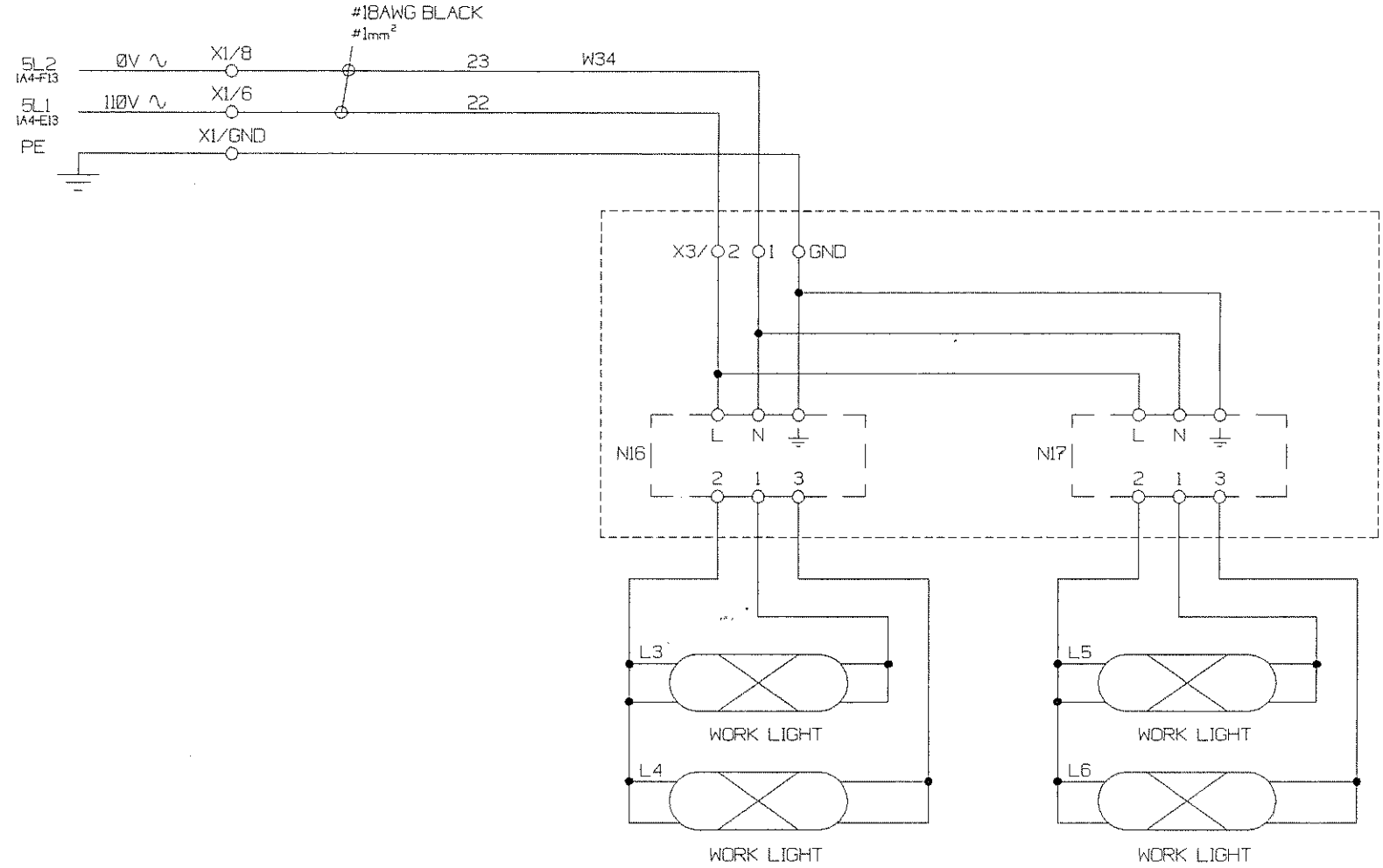
DESCRIPTION	EMERGENCY STOP			
	DESIGNED	PABLO	09/04/1997	PROJECTION
	DRAWER	PABLO	09/04/1997	SIZE A3
	CONTROLLED	SILVIO	09/05/1997	
REFERENCE	SHEET 7A / 1-	SCALE 1:1	APPLICATION EZPATH-SD V1.0	N° R78521 B



REL	MODIFICATION	MODIF.	APROV.	DATE
D	SEE NOTE 'REL.H' AT PAGE 50A	FRANCISCO	BAPTISTA	10/26/99
C	SEE NOTE 'REL.D' AT PAGE 50A	PABLO	GERALDO	6/18/98
B	SEE NOTE 'REL.B' AT PAGE 50A	PABLO	SILVIO	06/11/97

DESCRIPTION	WORK LIGHT			
	DESIGNED	PABLO	09/04/1997	PROJECTION
	DRAWER	PABLO	09/04/1997	SIZE A3
	CONTROLLED	SILVIO	09/05/1997	

REFERENCE	SHEET	SCALE	APPLICATION	N°R78522 D
	8A / 1-	1:1	EZPATH-SD V1.0	

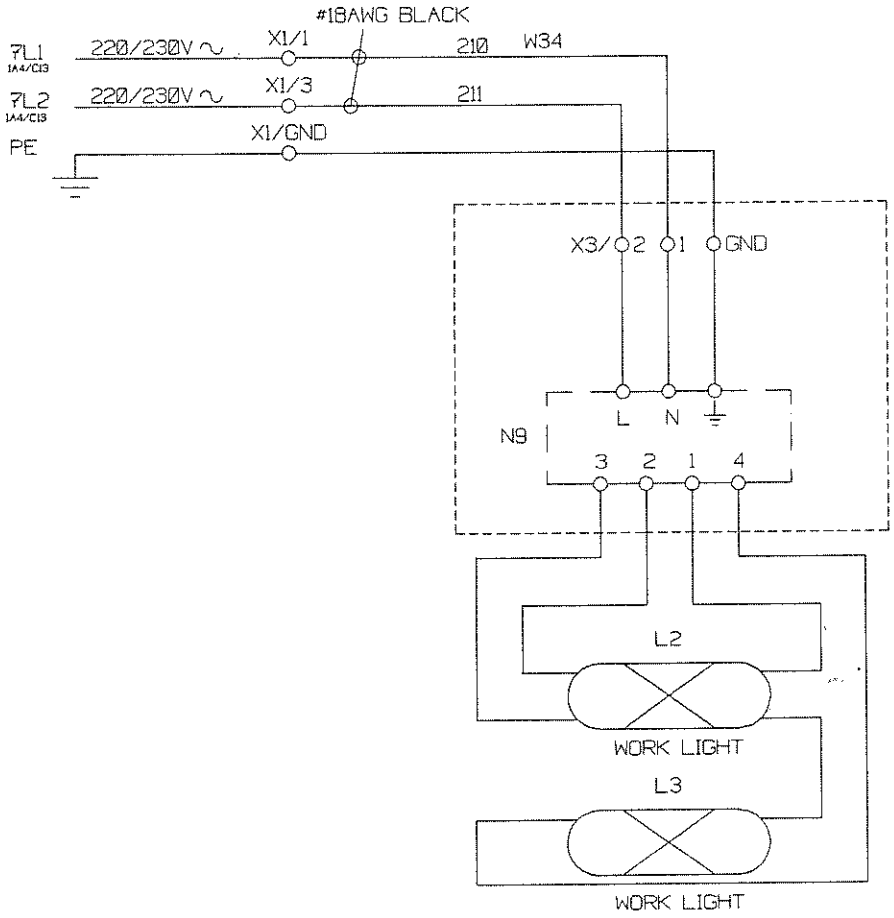


REL	MODIFICATION	MODIF.	APROV.	DATE
B	SEE NOTE RELAT AT PAGE 52A	FRANCISCO	BAPTISTA	15/04/99

DESCRIPTION	WORK LIGHT			
	DESIGNED	BATISTA	16/06/1999	PROJECTION
	DRAWER	BATISTA	16/06/1999	SIZE A3
	CONTROLLED	GERALDO	16/06/1999	

REFERENCE	SHEET	SCALE	APPLICATION	N° R94213 B
	88 / 1-	1:1	EZPATH-SD V1.0	

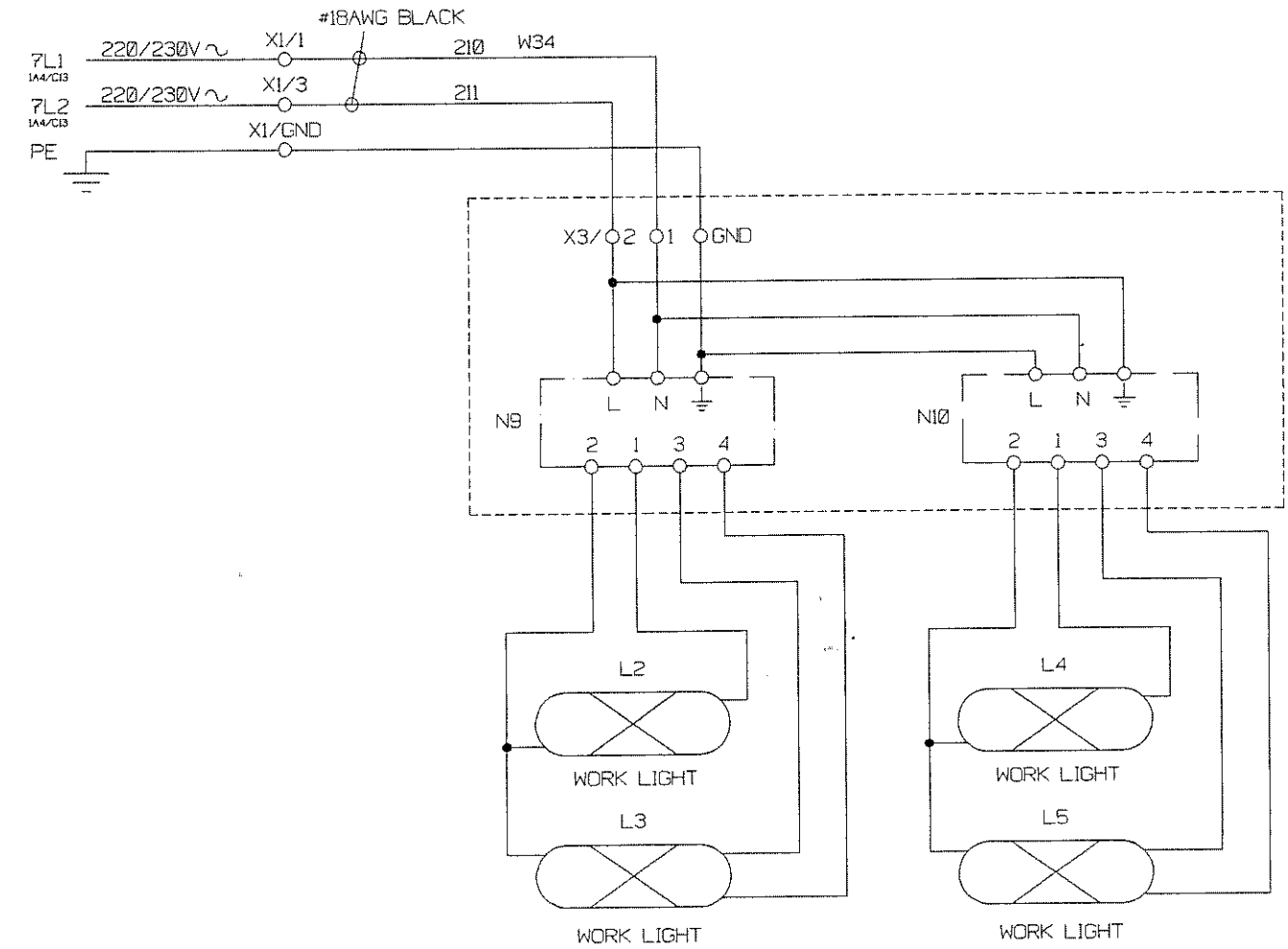
OR



REL	MODIFICATION	MODIF.	APROV.	DATE

REL	MODIFICATION	MODIF.	APROV.	DATE

DESCRIPTION	WORK LIGHT				
ROMI®	DESIGNED	BAPTISTA	11/03/1999	PROJECTION	SIZE
	DRAWER	FRANCISCO	11/03/1999		A3
	CONTROLLED	GERALDO	11/03/1999		
REFERENCE	SHEET 8C / 1-	SCALE 1:1	APLICATION EZPATH-SD V1.0	N° R98531 A	



REL	MODIFICATION	MODIF.	APROV.	DATE

REL	MODIFICATION	MODIF.	APROV.	DATE

DESCRIPTION: WORK LIGHT

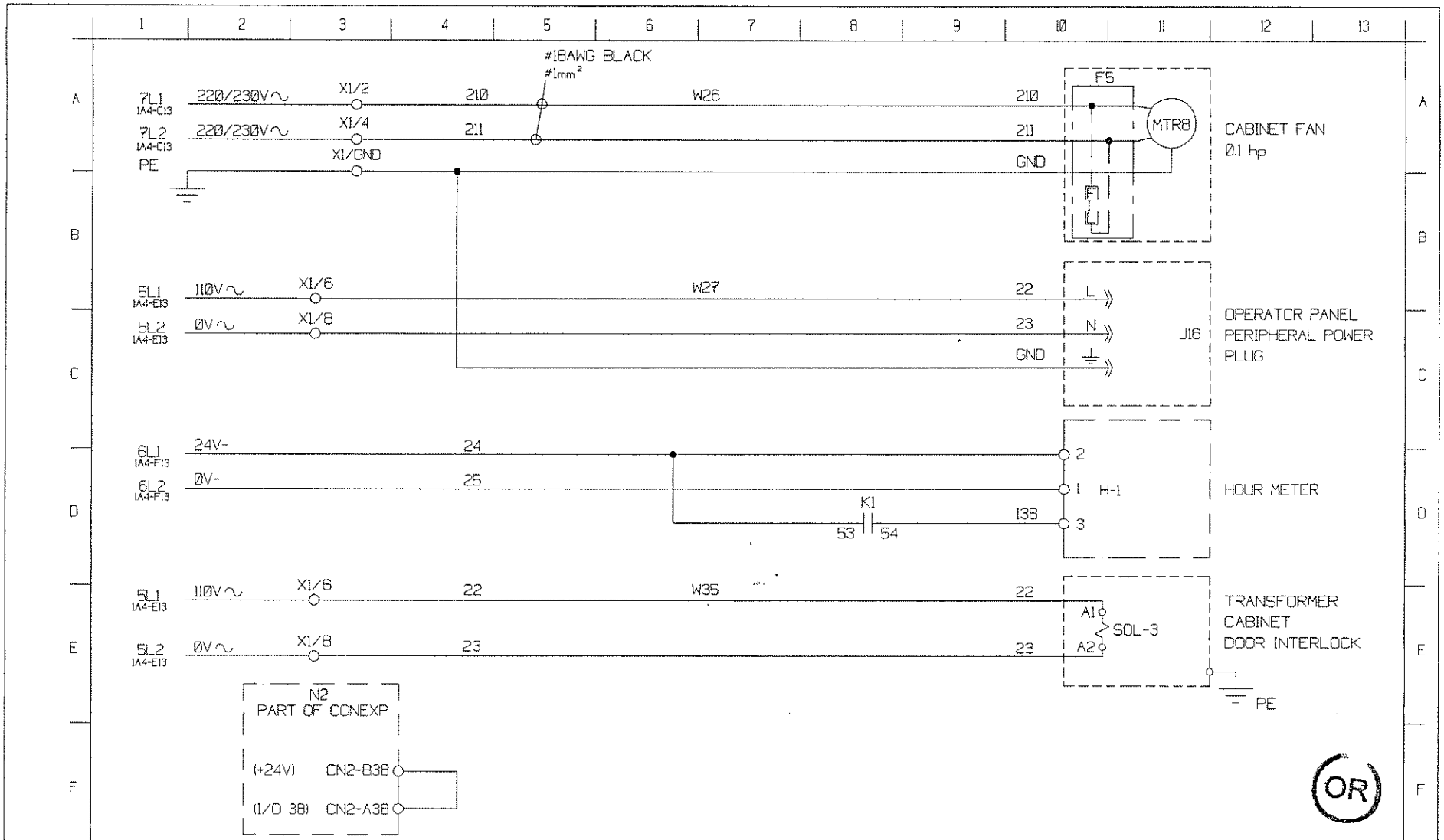
ROMI®

DESIGNED	BAPTISTA	11/03/1999
DRAWER	FRANCISCO	11/03/1999
CONTROLLED	GERALDO	11/03/1999

PROJECTION | SIZE: A3

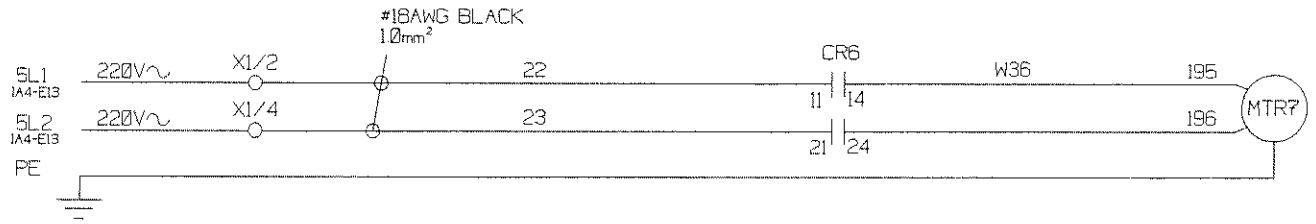
REFERENCE	SHEET	SCALE	APLICATION	N°
	8D / 1-	1:1	EZPATH-SD V1.0	R98533 A

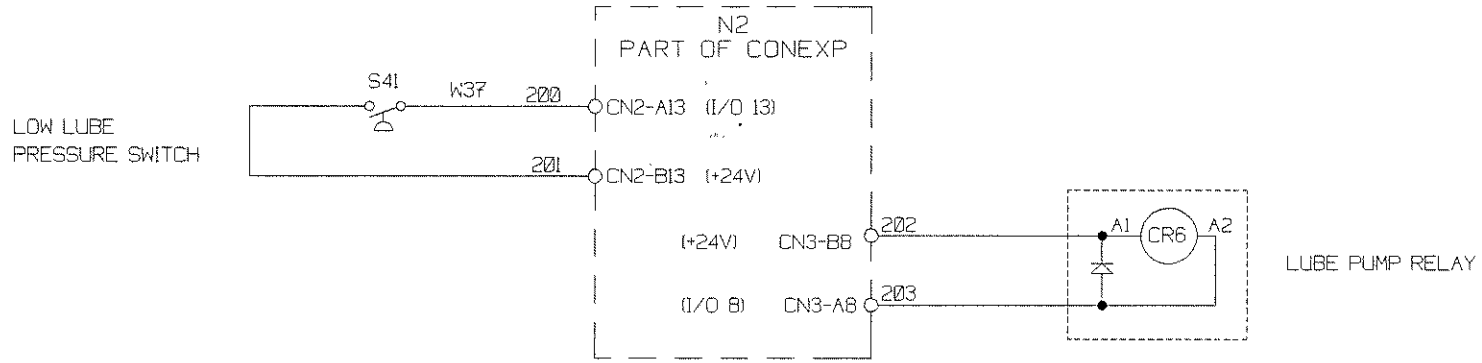
OR



REL	MODIFICATION	MODIF.	APROV.	DATE
D	SEE NOTE REL. N AT PAGE 50A	MARCIO	ROGERIO	07/05/01
C	SEE NOTE REL. M AT PAGE 50A	FRANCISCO	BAPTISTA	10/26/99
B	SEE NOTE REL. F AT PAGE 50A	ROGERIO	GERALDO	11/10/98

DESCRIPTION	GENERAL CONNECTIONS			
	DESIGNED	PABLO	09/04/1997	PROJECTION / SIZE
	DRAWER	PABLO	09/04/1997	A3
	CONTROLLED	SILVIO	09/05/1997	
REFERENCE	SHEET 9A / 1-	SCALE 1:1	APPLICATION EZPATH-SD V1.0	N°R78523 D

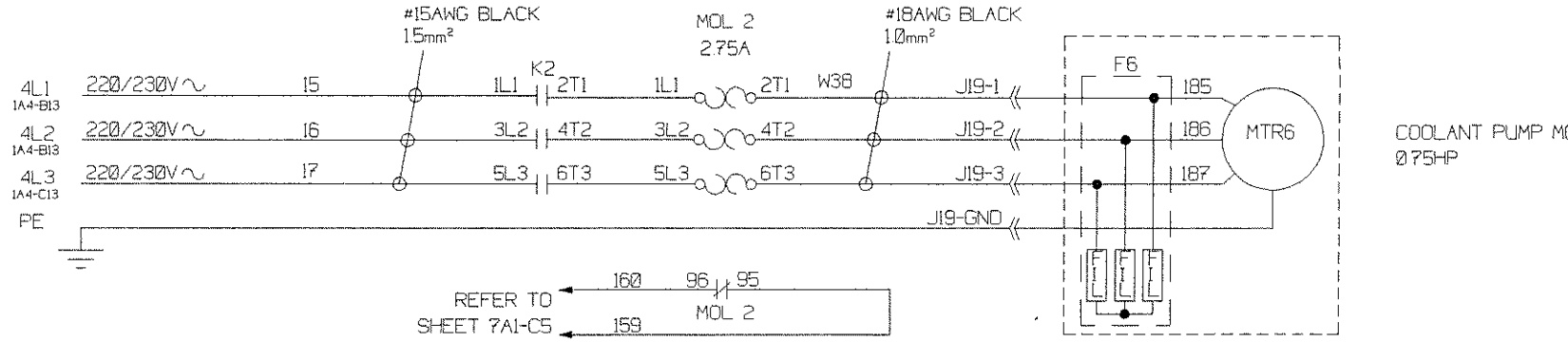




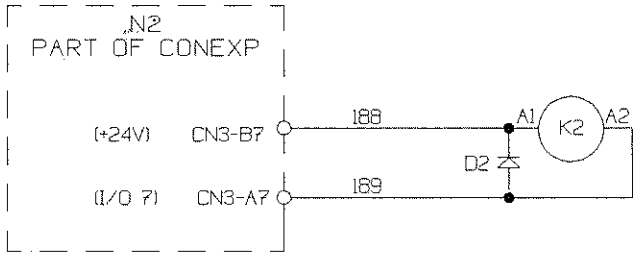
REL.	MODIFICATION	MODIF.	APROV.	DATE
C	SEE NOTE "REL. K" AT PAGE 50A	ROGÉRIO	GERALDO	17/05/00
B	SEE NOTE "REL.H" AT PAGE 50A	FRANCISCO	BAPTISTA	10/26/99

DESCRIPTION	LUBE PUMP		
DESIGNED	PABLO	09/04/1997	PROJECTION
DRAWER	PABLO	09/04/1997	SIZE A3
CONTROLLED	SILVIO	09/04/1997	
REFERENCE	SHEET 10A / 1-	SCALE 1:1	APPLICATION EZPATH-SD V1.0

N°R78524 C



COOLANT PUMP MOTOR
Ø.75HP



COOLANT PUMP RELAY
12A1-A5, 12A1-B5, 12A1-B5

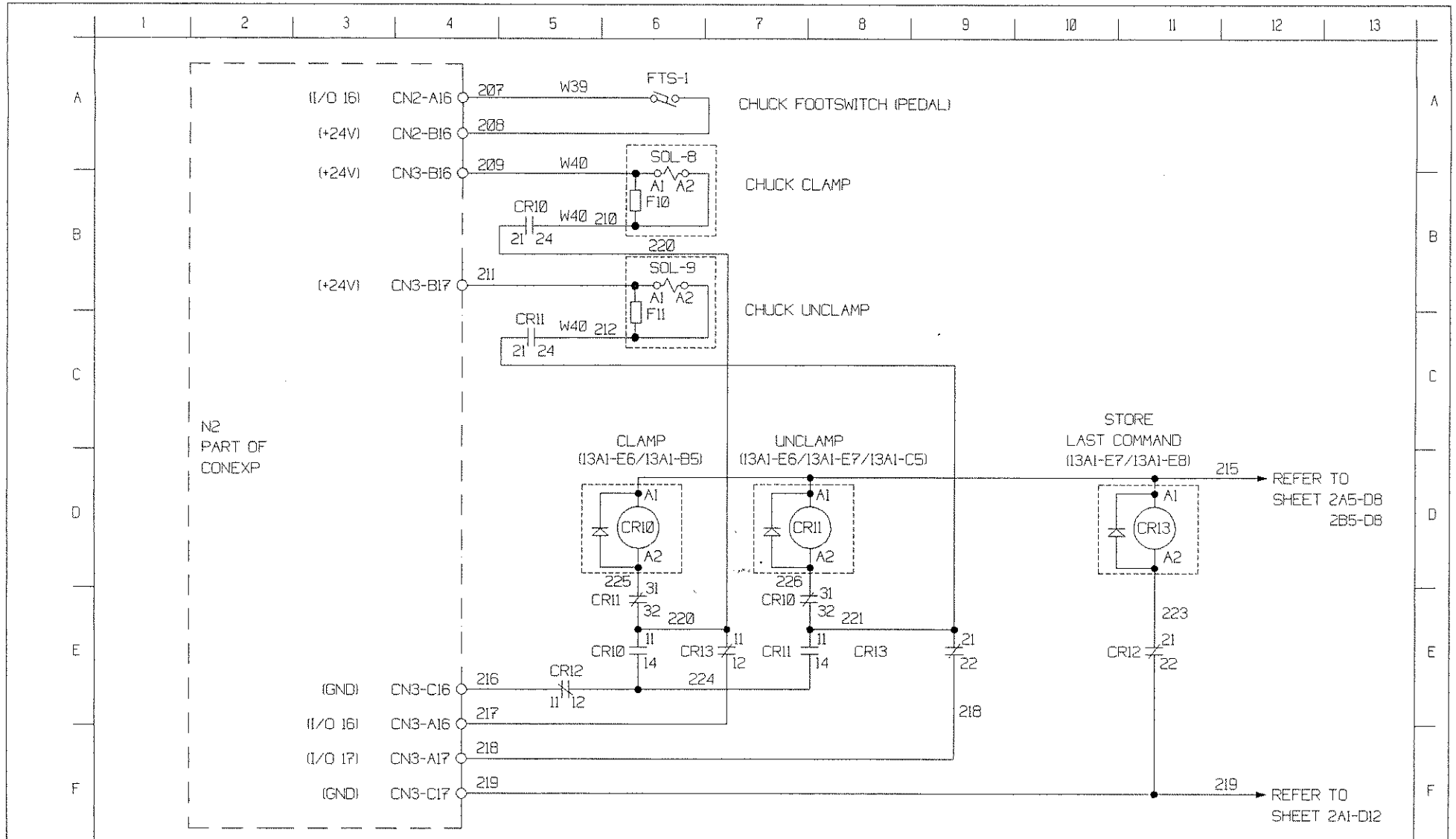
REL.	MODIFICATION	MODIF.	APROV.	DATE
B	SEE NOTE "RELAY" AT PAGE 5DA	FRANCISCO	BAPTISTA	10/26/98

DESCRIPTION	COOLANT PUMP		
	DESIGNED	PABLO	09/04/1997
	DRAWER	PABLO	09/04/1997
	CONTROLLED	SILVIO	09/05/1997
REFERENCE	SHEET 11A / 1-	SCALE 1:1	APPLICATION EZPATH-SD V1.0

PROJECTION | SIZE A3

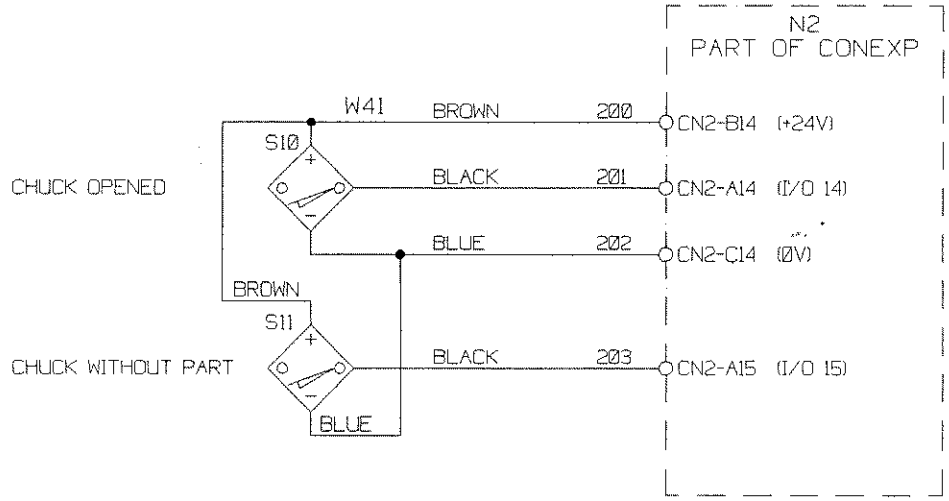
N°R78526 B

OR



REL.	MODIFICATION	MODIF.	APROV.	DATE
D	SEE NOTE 'REL.H' AT PAGE 58A	FRANCISCO	BAPTISTA	10/26/99
C	SEE NOTE 'REL.D' AT PAGE 58A	PABLO	GERALDO	6/18/98
B	SEE NOTE 'REL.B' AT PAGE 58A	PABLO	SILVIO	08/11/97

DESCRIPTION	PNEUMATIC CHUCK				
	DESIGNED	PABLO	09/04/1997	PROJECTION	SIZE
	DRAWER	PABLO	09/04/1997		A3
	CONTROLLED	SILVIO	09/05/1997		
REFERENCE	SHEET 13A / 1+	SCALE 1:1	APPLICATION EZPATH-SD V1.0	N°R78528 D	



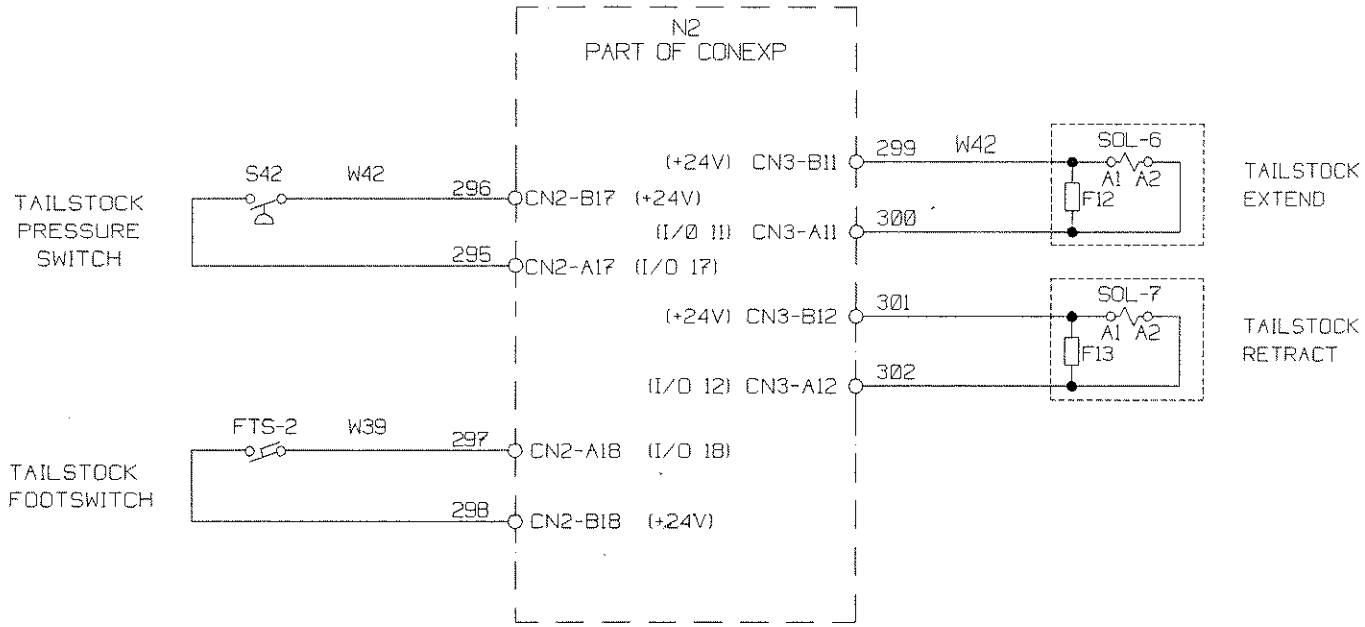
REL	MODIFICATION	MODIF.	APROV.	DATE
D	SEE NOTE 'REL.H' AT PAGE 50A	FRANCISCO	BAPTISTA	10/28/99
C	SEE NOTE 'REL.D' AT PAGE 50A	PABLO	GERALDO	6/10/98
B	SEE NOTE 'REL.B' AT PAGE 50A	PABLO	SILVIO	06/11/97

DESCRIPTION	PNEUMATIC CHUCK		
	DESIGNED	PABLO	09/04/1997
	DRAWER	PABLO	09/04/1997
	CONTROLLED	SILVIO	09/05/1997

PROJECTION | SIZE: A3

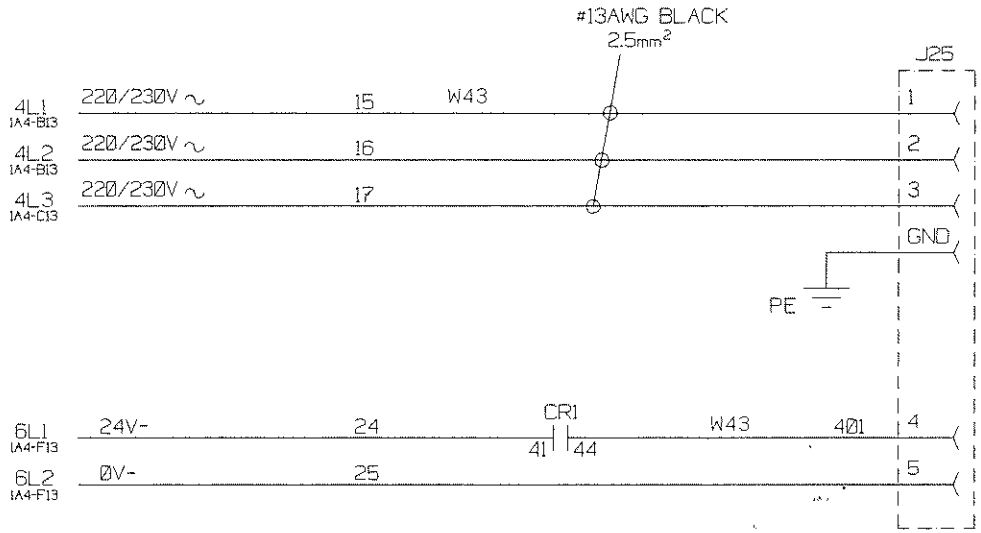
REFERENCE	SHEET	SCALE	APPLICATION	N°R78528 D
	13A / 2-	1:1	EZPATH-SD V1.0	

OR



REL.	MODIFICATION	MODIF.	APROV.	DATE
B	SEE NOTE "RELH" AT PAGE 50A	FRANCISCO	BAPTISTA	03/26/99

DESCRIPTION	PNEUMATIC TAILSTOCK			
	DESIGNED	PABLO	09/04/1997	PROJECTION
	DRAWER	PABLO	09/04/1997	SIZE A3
	CONTROLLED	SILVIO	09/05/1997	
REFERENCE	SHEET 14A / 1-	SCALE 1:1	APPLICATION EZPATH-SD V1.0	N°R78529 B

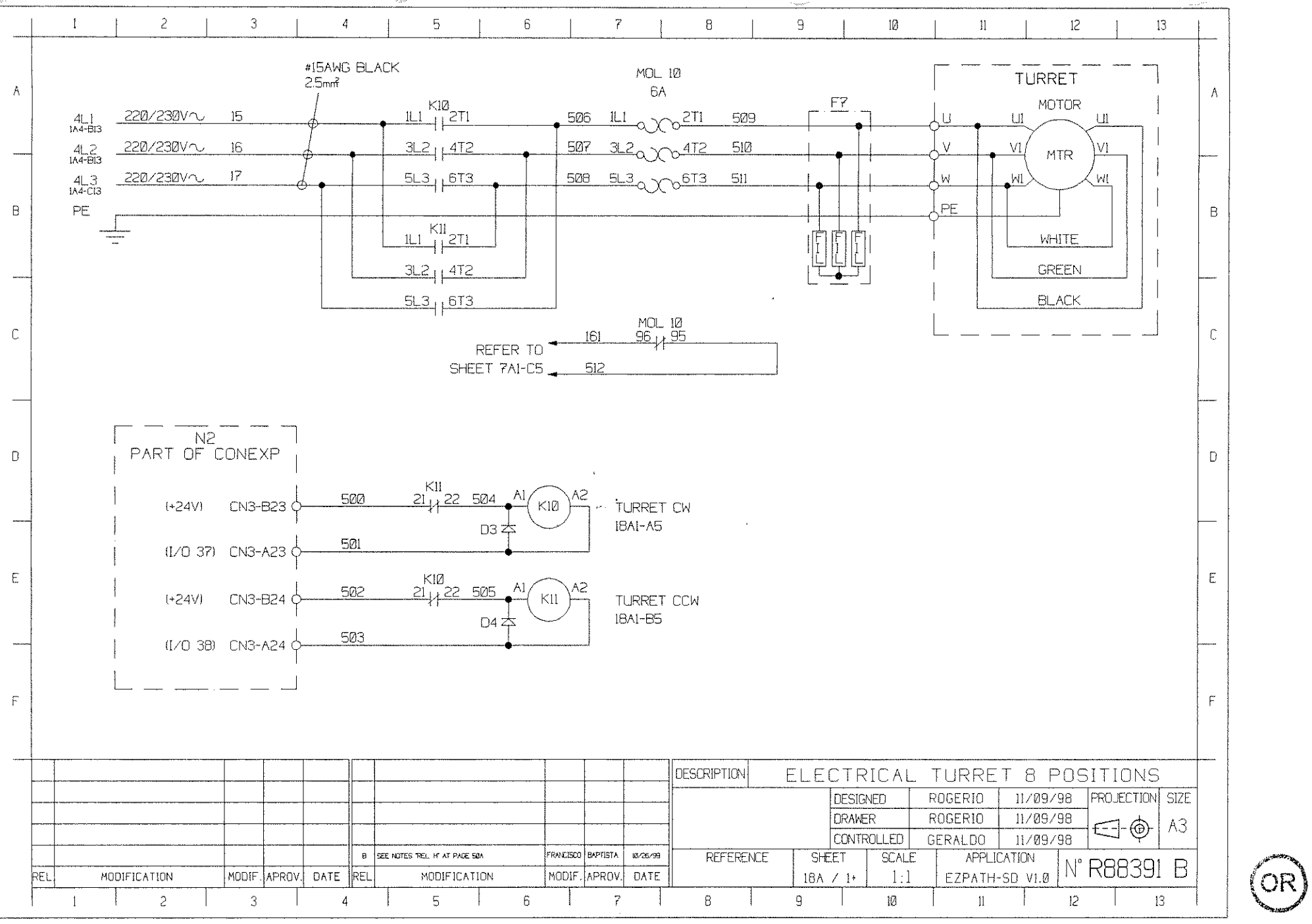


REL.	MODIFICATION	MODIF.	APROV.	DATE
B	SEE NOTE RELAY AT PAGE 50A	FRANCISCO	BAPTISTA	10/26/99

DESCRIPTION	CHIP CONVEYOR			PROJECTION	SIZE
	DESIGNED	ROGERIO	26/08/98		A3
	DRAWER	ROGERIO	26/08/98		
	CONTROLLED	GERALDO	26/08/98		

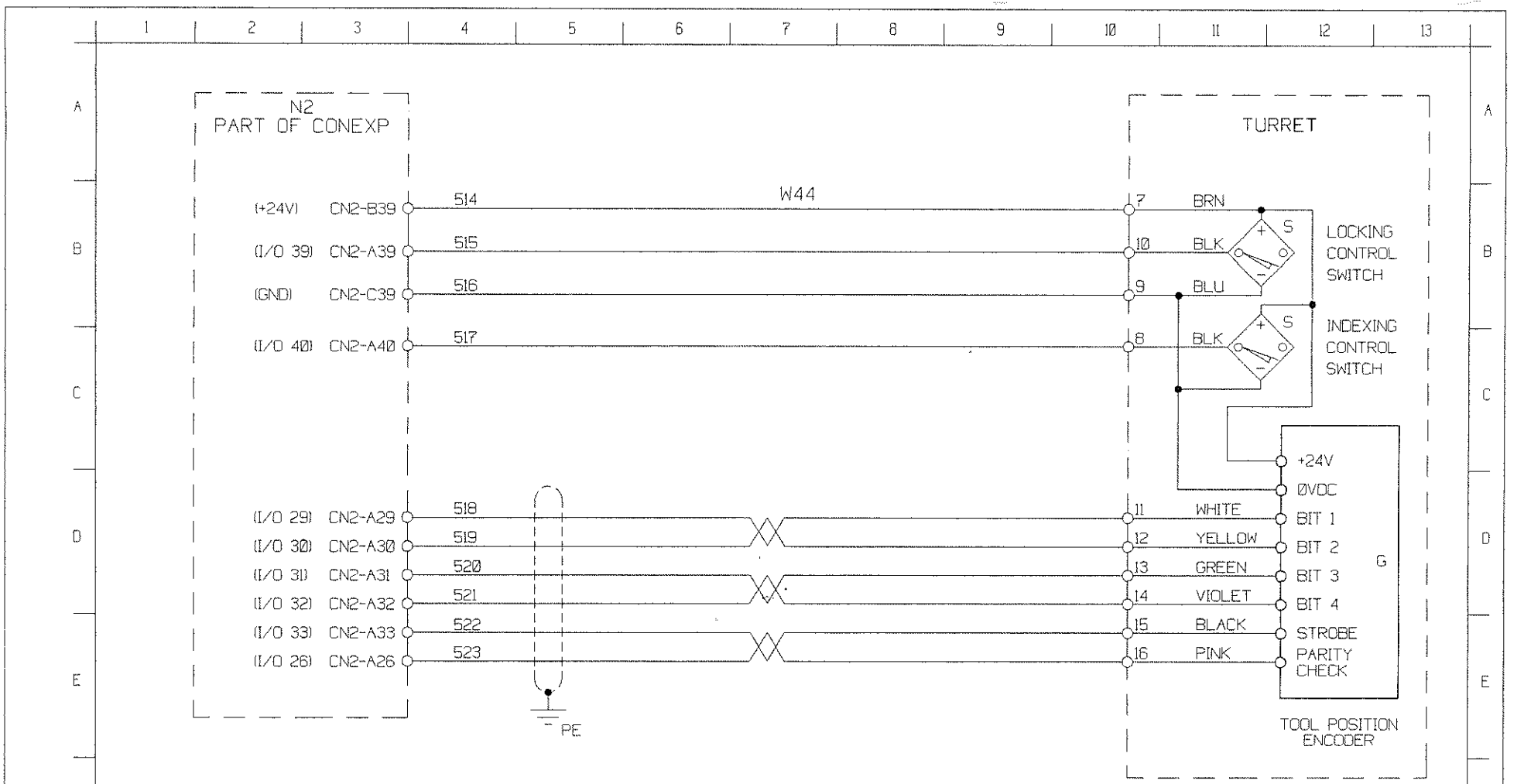
REFERENCE	SHEET	SCALE	APPLICATION	N° R88471 B
	15A / 1-	1:1	EZPATH-SO V1.0	

OR



REL	MODIFICATION	MODIF.	APROV.	DATE
B	SEE NOTES REL. 'B' AT PAGE 50A	FRANCISCO	BAPTISTA	10/26/98

DESCRIPTION	ELECTRICAL TURRET 8 POSITIONS				
	DESIGNED	ROGERIO	11/09/98	PROJECTION	SIZE
	DRAWER	ROGERIO	11/09/98		A3
	CONTROLLED	GERALDO	11/09/98		
REFERENCE	SHEET 18A / 1+	SCALE 1:1	APPLICATION EZPATH-SD V1.0	N° R88391 B	

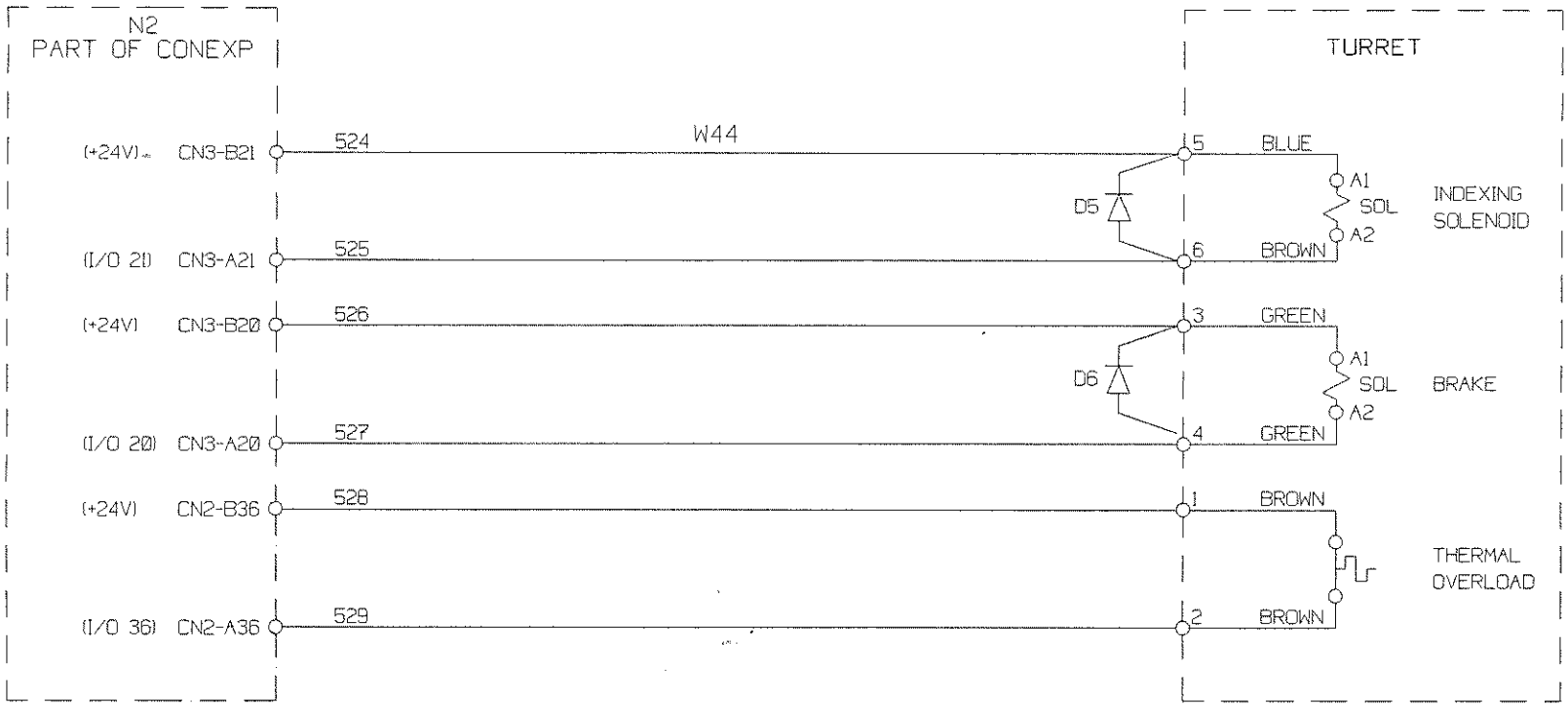


REL.	MODIFICATION	MODIF.	APROV.	DATE
B	SEE NOTES 'REL H' AT PAGE 50A	FRANCISCO	BAPTISTA	10/26/99

DESCRIPTION	ELECTRICAL TURRET 8 POSITIONS				
	DESIGNED	ROGERIO	11/09/98	PROJECTION	SIZE
	DRAWER	ROGERIO	11/09/98		A3
	CONTROLLED	GERALDO	11/09/98		

REFERENCE	SHEET	SCALE	APPLICATION	N° R88391 B
	18A / 2+	1:1	EZPATH-SD V1.0	

OR

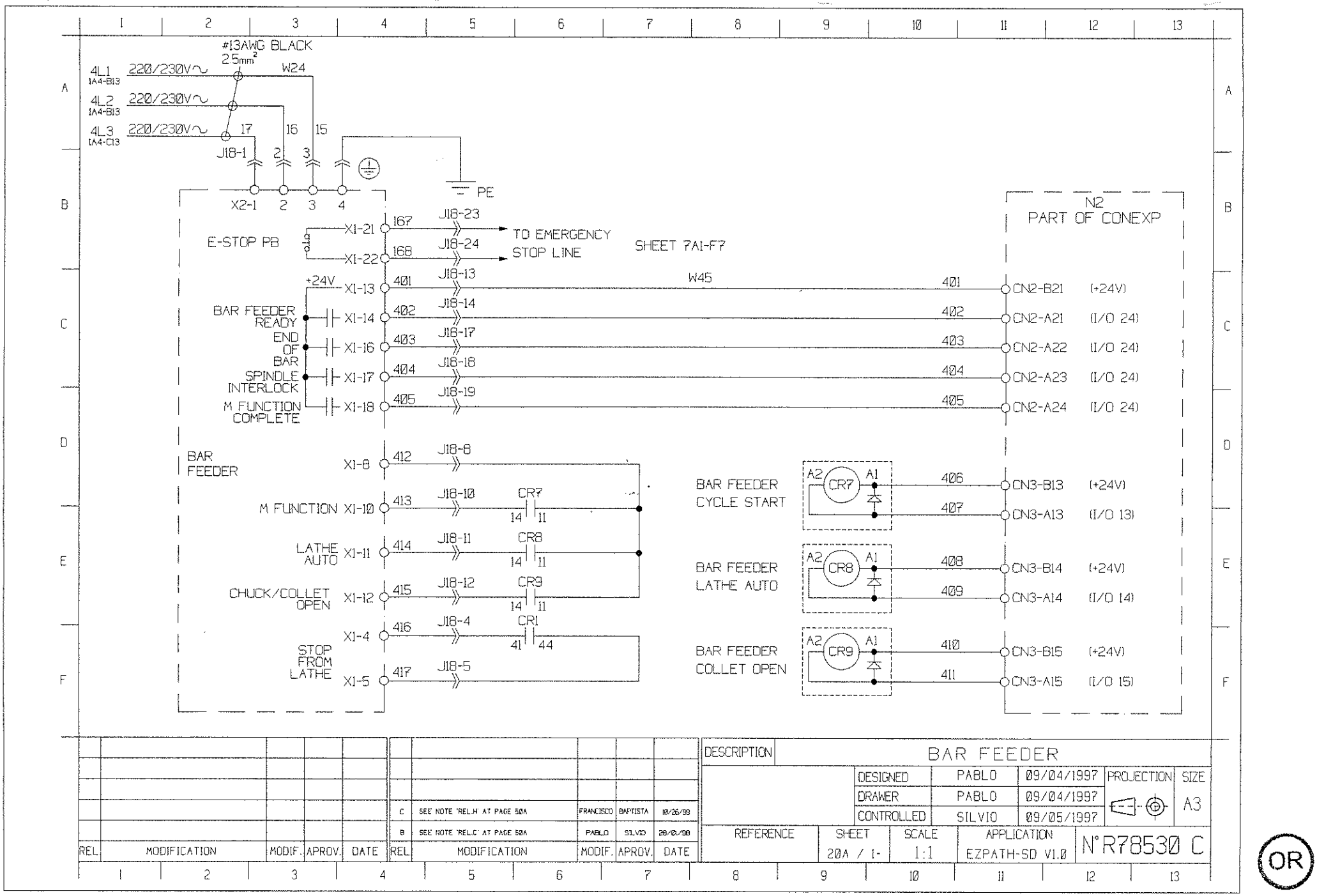


REL	MODIFICATION	MODIF.	APROV.	DATE
B	SEE NOTES 'REL H' AT PAGE 53A	FRANCISCO	BAPTISTA	10/26/99

DESCRIPTION: ELECTRICAL TURRET 8 POSITIONS

DESIGNED	ROGERIO	11/09/98	PROJECTION
DRAWER	ROGERIO	11/09/98	SIZE A3
CONTROLLED	GERALDO	11/09/98	

REFERENCE	SHEET	SCALE	APPLICATION	N° R88391 B
	18A / 3-	1:1	EZPATH-SD V1.0	



REL.	MODIFICATION	MODIF.	APROV.	DATE
C	SEE NOTE 'REL.H' AT PAGE 50A	FRANCISCO	BAPTISTA	10/26/98
B	SEE NOTE 'REL.C' AT PAGE 50A	PABLO	SILVIO	28/05/98

DESCRIPTION	BAR FEEDER				
	DESIGNED	PABLO	09/04/1997	PROJECTION	SIZE
	DRAWER	PABLO	09/04/1997		A3
	CONTROLLED	SILVIO	09/05/1997		
REFERENCE	SHEET 20A / 1-	SCALE 1:1	APPLICATION EZPATH-SD V1.0	N°R78530 C	

OR

N2 CN2	ADDRESS INPUT	FUNCTION
A1	INPUT-1	SPINDLE CW SELECTION
A2	INPUT-2	SPINDLE CCW SELECTION
A3	INPUT-3	SPINDLE LOW SPEED ON
A4	INPUT-4	SPINDLE HIGH SPEED ON
A5	INPUT-5	CONSOLE ENG./DISANGAGED
A6	INPUT-6	START (REMOTE CONTROL)
A7	INPUT-7	SELECT (REMOTE CONTROL)
A8	INPUT-8	HOLD (REMOTE CONTROL)
A9	INPUT-9	EMERGENCY STOP
A10	INPUT-10	MOTORS OVERLOAD
A11	INPUT-11	DRIVES FAULT
A12	INPUT-12	OPERATOR'S DOOR INTERLOCK
A13	INPUT-13	LUBE PERFORMANCE
A14	INPUT-14	CHUCK OPENED
A15	INPUT-15	CHUCK WITHOUT PART
A16	INPUT-16	CHUCK FOOTSWITCH (PEDAL)
A17	INPUT-17	TAILSTOCK PRESSURE SWITCH
A18	INPUT-18	TAILSTOCK FOOTSWITCH (PEDAL)
A19	INPUT-19	X AXIS HOME
A20	INPUT-20	Z AXIS HOME
A21	INPUT-21	BAR FEEDER READY
A22	INPUT-22	END OF BAR
A23	INPUT-23	SPINDLE INTERLOCK
A24	INPUT-24	M FUNCTION COMPLETE
A25	INPUT-25	ZERO SPEED
A26	INPUT-26	PARITY CHECK
A27	INPUT-27	MAIN AIR PRESSURE SWITCH
A28	INPUT-28	SAFETY SWITCH STATUS
A29	INPUT-29	POSITION BIT #1

N2 CN2	ADDRESS INPUT	FUNCTION
A30	INPUT-30	POSITION BIT #2
A31	INPUT-31	POSITION BIT #3
A32	INPUT-32	POSITION BIT #4
A33	INPUT-33	STROBE
A34	INPUT-34	SPINDLE HIGH SPEED SELECTION
A35	INPUT-35	SPINDLE LOW SPEED SELECTION
A36	INPUT-36	THERMAL OVERLOAD
A37	INPUT-37	INDEX TURRET PUSHBUTTON
A38	INPUT-38	
A39	INPUT-39	LOCKING CONTROL SWITCH
A40	INPUT-40	INDEXING CONTROL SWITCH

REL.	MODIFICATION	MODIF.	APROV.	DATE
E	SEE NOTE REL. H AT PAGE 50A	FRANCISCO	BAPTISTA	10/26/99
D	SEE NOTE REL. E AT PAGE 50A	ROGERIO	GERALDO	9/11/99
C	SEE NOTE REL. C AT PAGE 50A	PABLO	SILVIO	28/01/98
B	SEE NOTE 'RELB' AT PAGE 50A	PABLO	SILVIO	06/11/97

DESCRIPTION	INPUT MAP				
	DESIGNED	PABLO	09/04/1997	PROJECTION	SIZE
	DRAWER	PABLO	09/04/1997		A3
	CONTROLLED	SILVIO	09/05/1997		
REFERENCE	SHEET 40A / 1-	SCALE 1:1	APPLICATION EZPATH-SD V1.0	N° R78531 E	

OR

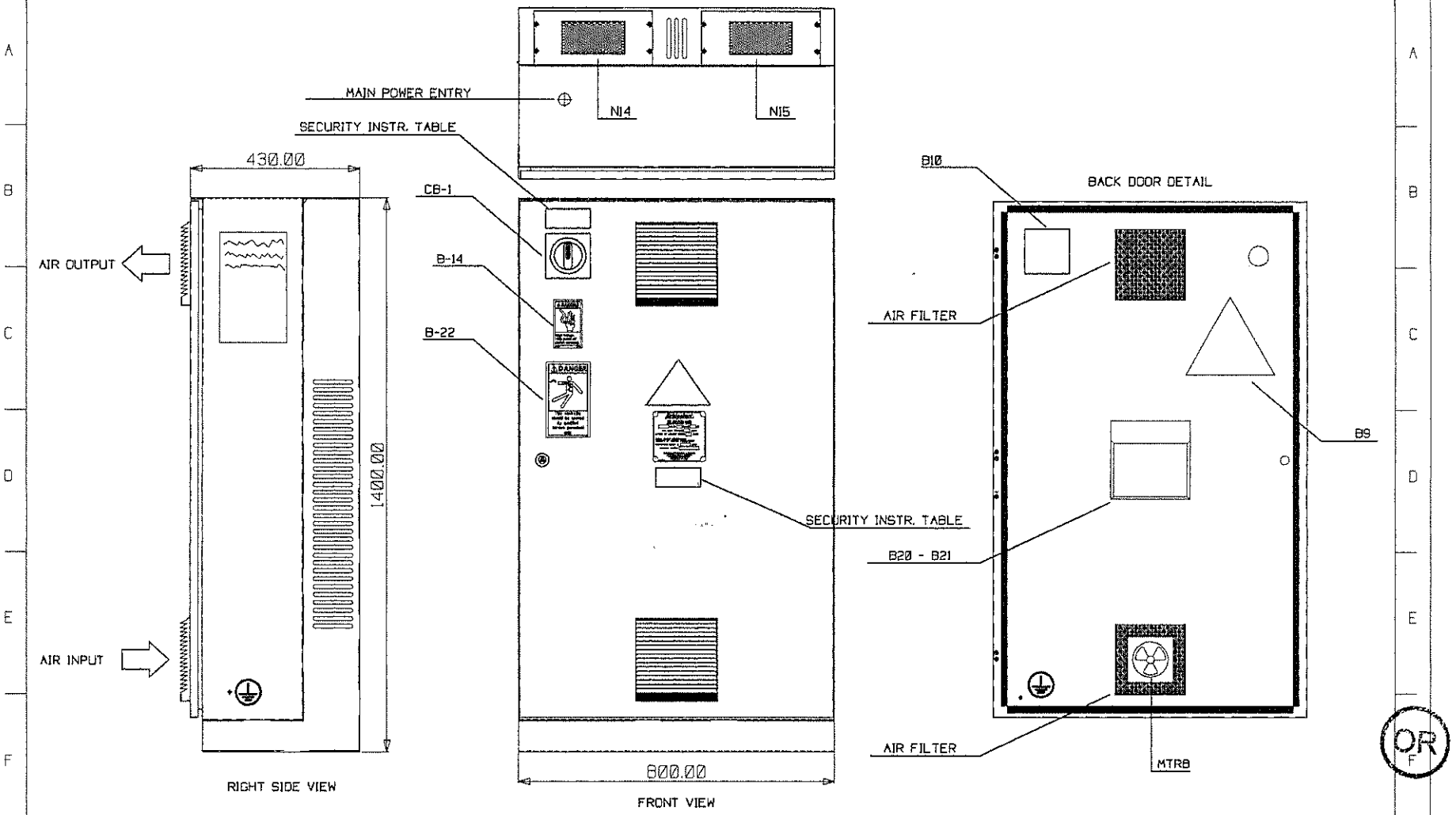
N2 CN3	OUTPUT ADDRESS	FUNCTION
A1	OUTPUT-1	MANUAL MODE
A2	OUTPUT-2	SPINDLE CW
A3	OUTPUT-3	SPINDLE CCW
A4	OUTPUT-4	RESET DRIVES
A5	OUTPUT-5	LAMP SPINDLE OFF
A6	OUTPUT-6	DOOR GUARD (CE)
A7	OUTPUT-7	COOLANT PUMP RELAY
A8	OUTPUT-8	LUBE PUMP RELAY
A9	OUTPUT-9	SPINDLE HIGH SPEED
A10	OUTPUT-10	SPINDLE LOW SPEED
A11	OUTPUT-11	ADVANCE TAILSTOCK
A12	OUTPUT-12	RETRACT TAILSTOCK
A13	OUTPUT-13	BAR FEEDER - CYCLE START
A14	OUTPUT-14	BAR FEEDER - LATHE AUTO
A15	OUTPUT-15	BAR FEEDER - COLLET OPEN
A16	OUTPUT-16	CHUCK CLAMP INTERLOCK
A17	OUTPUT-17	CHUCK UNCLAMP INTERLOCK
A18	OUTPUT-18	RESERVED
A19	OUTPUT-19	
A20	OUTPUT-20	BRAKE SOLENOID
A21	OUTPUT-21	INDEXING SOLENOID
A22	OUTPUT-22	RESERVED
A23	OUTPUT-23	TURRET CW
A24	OUTPUT-24	TURRET CCW
A25	OUTPUT-25	
A26	OUTPUT-26	
A27	OUTPUT-27	
A28	OUTPUT-28	
A29	OUTPUT-29	

N2 CN3	OUTPUT ADDRESS	FUNCTION
A30	OUTPUT-30	
A31	OUTPUT-31	
A32	OUTPUT-32	

REL.	MODIFICATION	MODIF.	APROV.	DATE
C	SEE NOTE "REL. H" AT PAGE 52A	FRANCISCO	BAPTISTA	10/26/99
B	SEE NOTE "REL. E" AT PAGE 52A	ROGERIO	GERALDO	9/11/98

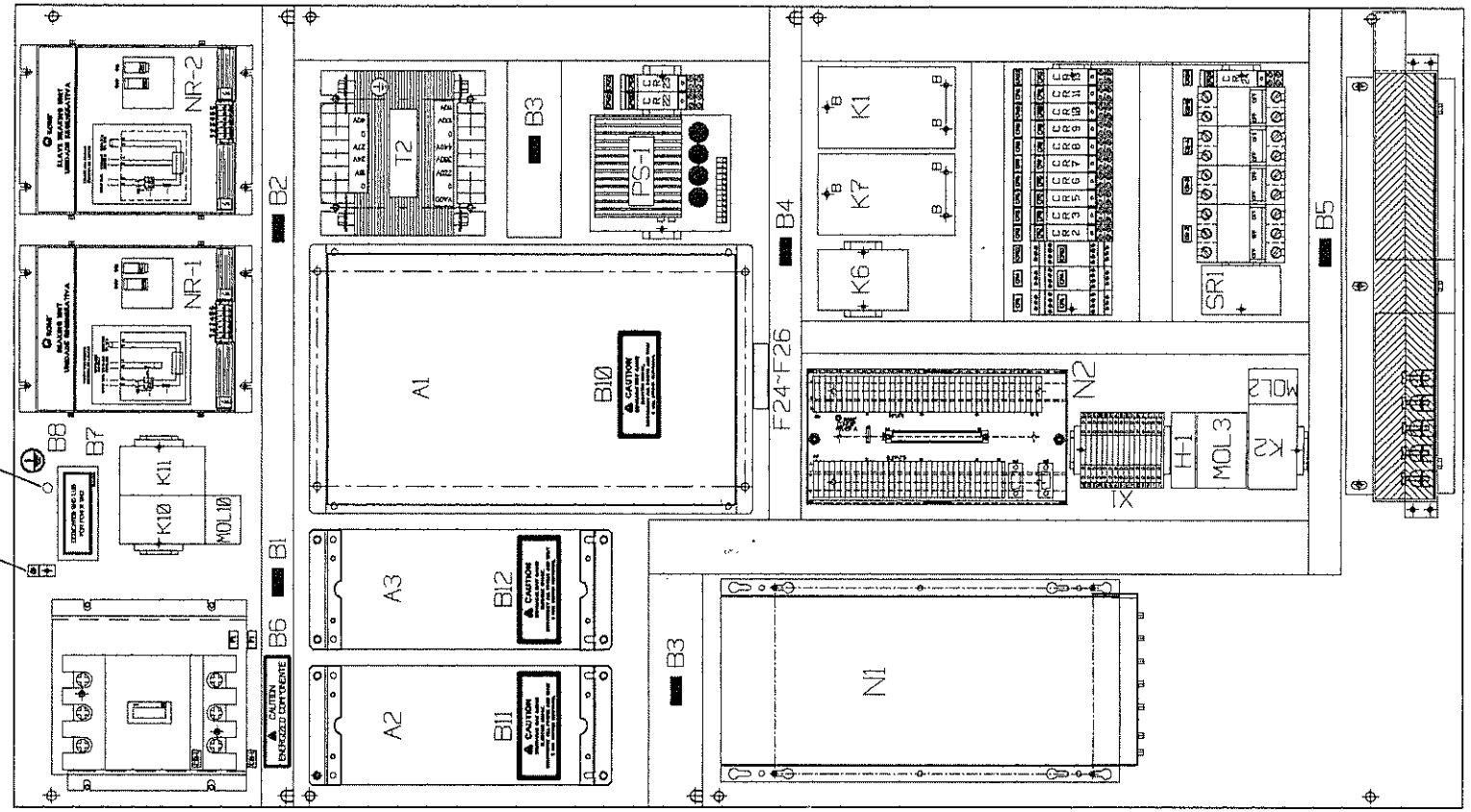
DESCRIPTION	OUTPUT MAP				
	DESIGNED	PABLO	09/04/1997	PROJECTION	SIZE
	DRAWER	PABLO	09/04/1997		A3
	CONTROLLED	SILVIO	09/05/1997		
REFERENCE	SHEET 41A / 1-	SCALE 1:1	APPLICATION EZPATH-SD V1.0	N°R78532 C	

OR



ED.	MODIFICAÇÃO	MODIF.	APROV.	DATA
E	SEE NOTE "REL. H" AT PAGE 52A	MARCIO	BAPTISTA	23/04/2003
D	SEE NOTE "REL. H" AT PAGE 52A	FRANCISCO	BAPTISTA	23/11/99
C	SEE NOTE "REL. G" AT PAGE 52A	BAPTISTA	GERALDO	15/05/98
B	SEE NOTE "REL. E" AT PAGE 52A	ROGERIO	GERALDO	09/12/97

DESCRIÇÃO	ELECTRICAL CABINET LAYOUT				
ROMI®	PROJETADO	PABLO	09/04/1997	PROJEÇÃO	FORM.
	DESENHADO	PABLO	09/04/1997		A3
	CONTROLADO	SILVIO	09/04/1997		
REFERÊNCIA	FOLHA 42A / 1+	ESCALA 1:9	APLICAÇÃO EZPATH-SD V1.0	Nº R78533 E	

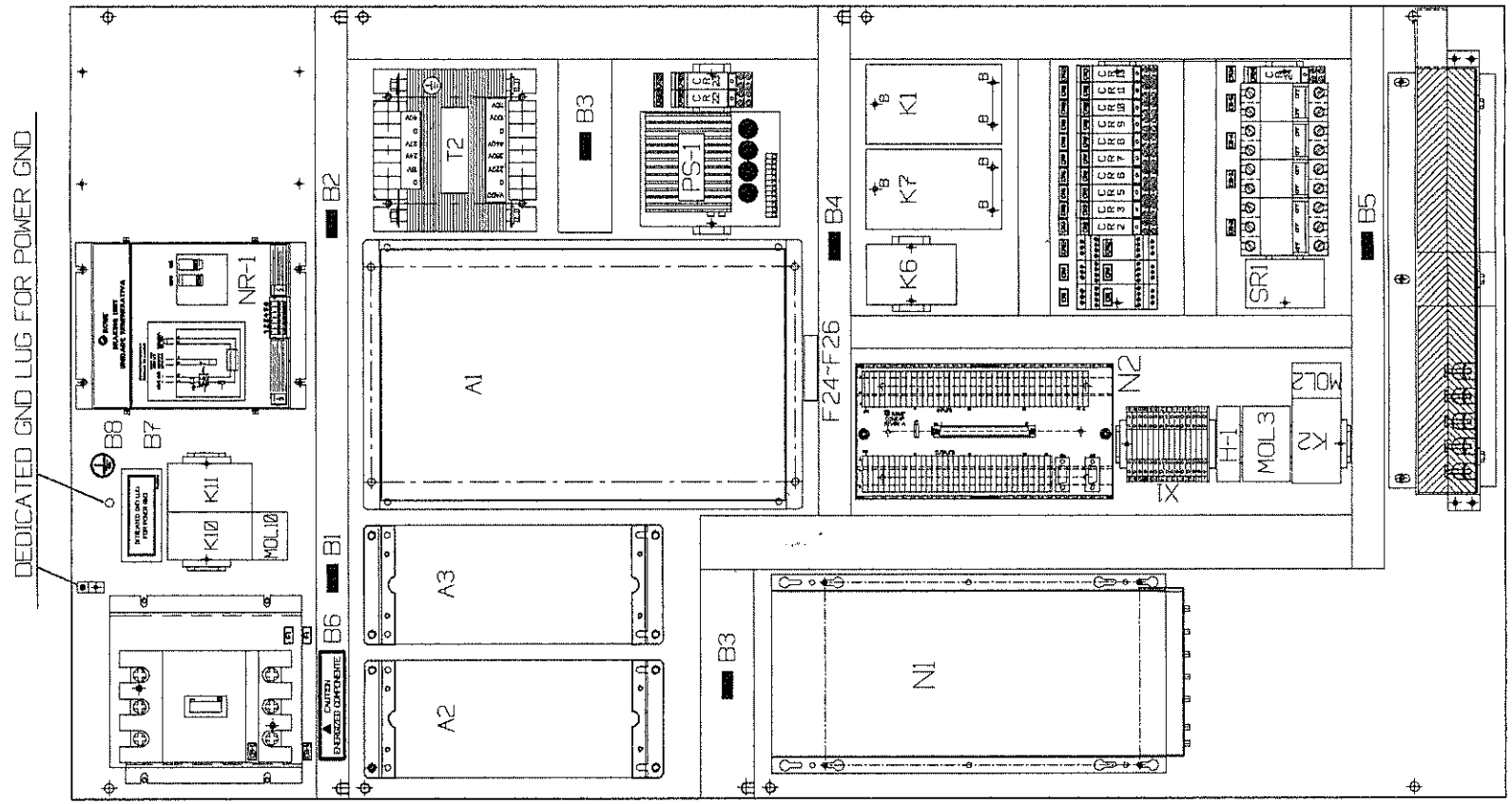


ED.	MODIFICAÇÃO	MODIF.	APROV.	DATA
E	SEE NOTE "REL. H" AT PAGE 58A	MARCIO	BAPTISTA	05/04/01
D	SEE NOTE "REL. H" AT PAGE 58A	FRANCISCO	BAPTISTA	10/08/99
C	SEE NOTE "REL. G" AT PAGE 58A	BATISTA	BAPTISTA	15/06/99
B	SEE NOTE "REL. E" AT PAGE 58A	ROGERIO	GERALDO	08/11/98

DESCRIÇÃO	ELECTRICAL CABINET LAYOUT		
ROMI®	PROJETADO	PABLO	09/04/1997
	DESENHADO	PABLO	09/04/1997
	CONTROLADO	SILVIO	09/04/1997

REFERÊNCIA	FOLHA	ESCALA	APLICAÇÃO	Nº R78533 E
	42A / 2+	1:4	EZPATH-SD V1.0	

PROJEÇÃO | FORM. A3



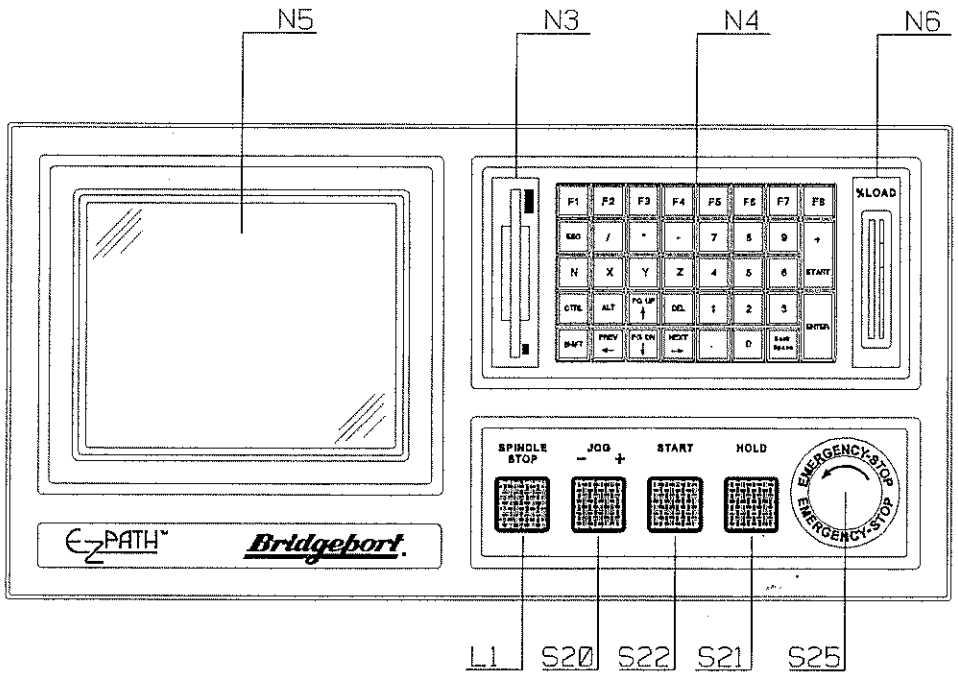
ED.	MODIFICAÇÃO	MODIF.	APROV.	DATA
E	SEE NOTE 'REL. H' AT PAGE 62A	MARCIO	BAPTISTA	05/24/01
D	SEE NOTE 'REL. H' AT PAGE 62A	FRANCISCO	BAPTISTA	12/20/99
C	SEE NOTE 'REL. G' AT PAGE 62A	BATISTA	BAPTISTA	16/06/99
B	SEE NOTE 'REL. E' AT PAGE 62A	ROGERIO	GERALDO	08/11/98

DESCRIÇÃO: ELECTRICAL CABINET LAYOUT

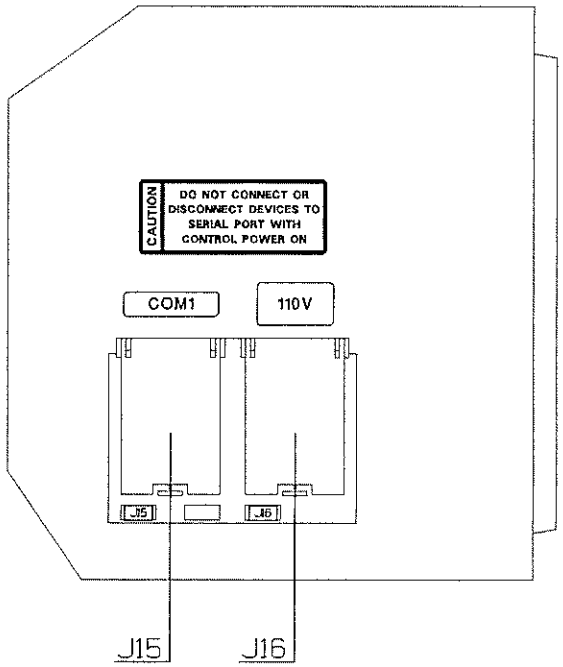
ROMI®

PROJETADO	PABLO	09/04/1997	PROJEÇÃO
DESENHADO	PABLO	09/04/1997	FORM. A3
CONTROLADO	SILVIO	09/04/1997	

REFERÊNCIA	FOLHA	ESCALA	APLICAÇÃO	Nº
	42A / 3-	1:4	EZPATH-SD V1.0	R78533 E



FRONT VIEW

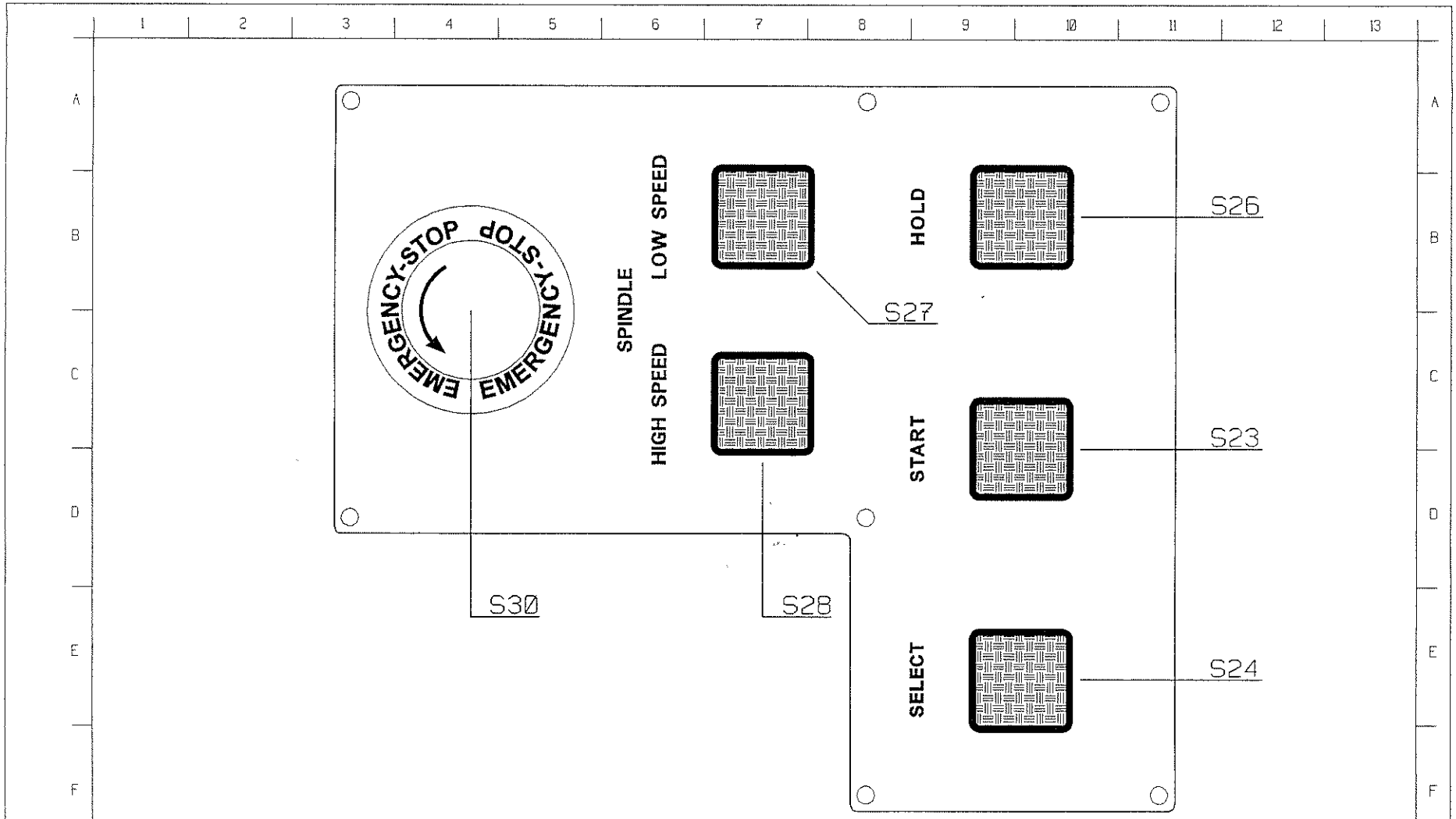


LEFT SIDE VIEW

REL	MODIFICATION	MODIF.	APROV.	DATE
B	SEE NOTE "REL.H" AT PAGE 50A	FRAN.	BAPTIS.	10/28/99

DESCRIPTION	OPERATOR PANEL LAYOUT				
	DESIGNED	PABLO	09/04/1997	PROJECTION	SIZE
	DRAWER	PABLO	09/04/1997		A3
	CONTROLLED	SILVIO	09/05/1997		
REFERENCE	SHEET 43A / 1-	SCALE	APPLICATION EZPATH-SD V1.0	N°R78534 B	

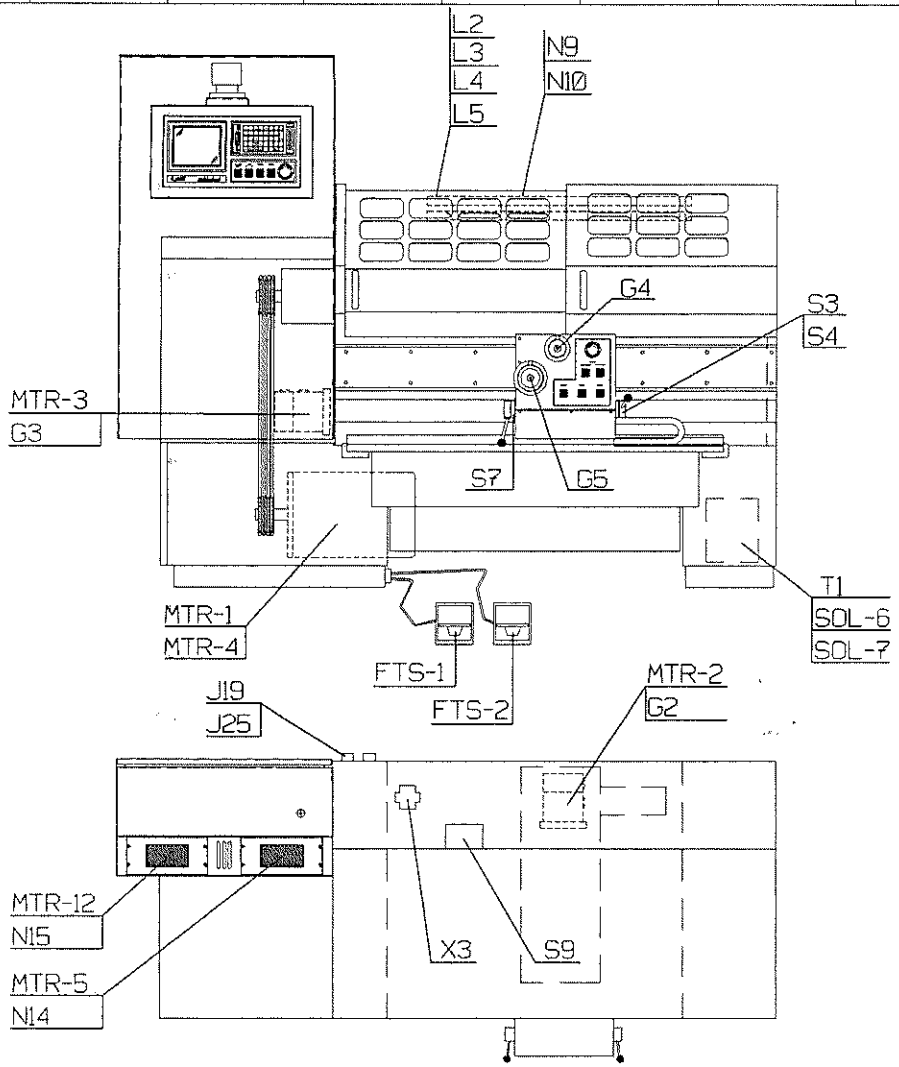
OR

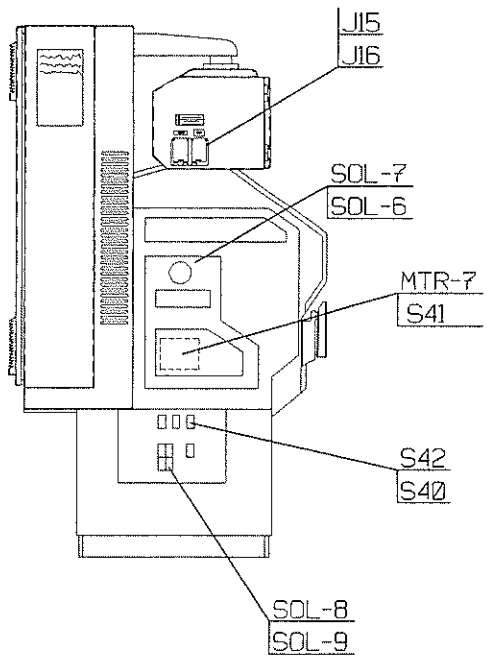


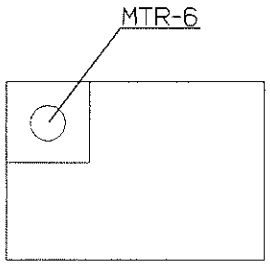
REL.	MODIFICATION	MODIF.	APROV.	DATE	REL.	MODIFICATION	MODIF.	APROV.	DATE

DESCRIPTION	REMOTE CONTROL P.LAYOUT				
	DESIGNED	PABLO	09/04/1997	PROJECTION	SIZE
	DRAWER	PABLO	09/04/1997		A3
	CONTROLLED	SILVIO	09/05/1997		
REFERENCE	SHEET 44A / 1-	SCALE 1:1	APPLICATION EZPATH-SD V1.0	N° R78535 A	

OR







"COOLANT UNIT"

REL.	MODIFICATION	MODIF.	APROV.	DATE
C	SEE NOTE 'REL H' AT PAGE 50A	FRANCISCO	BAPTISTA	11/03/99
B	SEE NOTE 'REL F' AT PAGE 50A	ROBERTO	GERALDO	9/11/98

DESCRIPTION	MACHINE LATHE LAYOUT			
	DESIGNED	PABLO	09/04/1997	PROJECTION
	DRAWER	PABLO	09/04/1997	SIZE A3
	CONTROLLED	SILVIO	09/05/1997	
REFERENCE	SHEET 45A / 1-	SCALE	APPLICATION EZPATH-SD V1.0	N°R78536 C

SIMB	FUNCTION	SUPPLIER CODE	SUPPLIER	P / N ITEM	LOCATION	EZ-I	EZ-II			SPARE PART
						1M	1M	1.5M	2M	
A 1	SPINDLE DRIVE	CIMR-G5U2015-20CV	YASKAWA	R70610	EL. CABINET	-	X	X	X	
		CIMR-G5U2011-15CV	YASKAWA	R70612	EL. CABINET	X	-	-	-	
A 2	X AXIS DRIVE	SGDB-05ADG	YASKAWA	R69710	EL. CABINET	X	X	X	X	
A 3	Z AXIS DRIVE	SGDB-10ADG	YASKAWA	R69709	EL. CABINET	-	X	X	X	
		SGDB-05ADG	YASKAWA	R69710	EL. CABINET	X	-	-	-	
B1-B5	TEMPERATURE INDICATOR - LABEL	CS40/77	ERNEST SPIRIG	R36825	EL. CABINET	X	X	X	X	
B6	CAUTION ENERGIZED COMPONENTS - LABEL	R74914	ROMI	R74914	EL. CABINET	X	X	X	X	
B7	DEDICATED GND LUG - LABEL	R68982	ROMI	R68982	EL. CABINET	X	X	X	X	
B8	GROUND SIGNAL - LABEL	R75133	ROMI	R75133	EL. CABINET	X	X	X	X	
B9	ORANGE TRIANGLE LABEL	R52674	ART VINIL	R52674	EL. CABINET	X	X	X	X	
B10-B12	CAUTION ENERGIZED COMPONENTS - LABEL	R94219	ROMI	R94219	EL. CABINET	-	SPE	SPE	SPE	
B13	110V ADHESIVE LABEL	R88404	CRIART	R88404	EL. CABINET	X	X	X	X	
B14	DANGER ADHESIVE LABEL	R68975	ROMI	R68975	EL. CABINET	X	X	X	X	
B15	COM1 ADHESIVE LABEL	R73326	ROMI	R73326	EL. CABINET	X	X	X	X	
B16	SERIAL DANGER ADHESIVE (I) LABEL	R75125	ROMI	R75125	EL. CABINET	X	X	X	X	
B17	INCLINATION INDICATOR LABEL	TRB3 TIP (N) TELL	INDEX	R51930	EL. CABINET	X	X	X	X	
B20	LOG BOOK BINDER	A09689	LINEART	A09689	EL. CABINET	X	X	X	X	
B21	DOCUMENTS HOLDER	71160	ROMI	Q95216	EL. CABINET	X	X	X	X	
B22	WARNING SAFT ADHESIVE LABEL	R68978	ROMI	R68978	EL. CABINET	X	X	X	X	
CB-1	MAIN CIRCUIT BREAKER 40A	29003 + 29033 - 32-40A	SCHNEIDER	R69719	EL. CABINET	X	X	X	X	
	MAIN CIRCUIT BREAKER 63A *	29003 + 29032 - 50-63A	SCHNEIDER	R66382	EL. CABINET	X	-	-	-	
	MAIN CIRCUIT BREAKER 80A	29003 + 29031 - 64-80A	SCHNEIDER	R74690	EL. CABINET	-	X	X	X	
	BREAKER HANDLE	29338	SCHNEIDER	R66357	EL. CABINET	X	X	X	X	
CB-2	INPUT GENERAL MOTORS CIRCUIT BREAKER - 6A	24348	SCHNEIDER	Q15389	EL. CABINET	X	X	X	X	
	INPUT GENERAL MOTORS CIRCUIT BREAKER - 10A	24349	SCHNEIDER	Q15390	EL. CABINET	X	X	X	X	
CB-3	INPUT TRANSFORMER CIRCUIT BREAKER - 6A	24335	SCHNEIDER	R18116	EL. CABINET	X	X	X	X	
CB-4	COMMAND 110V CIRCUIT BREAKER - 6A	24335	SCHNEIDER	R18116	EL. CABINET	X	X	X	X	
CB-5	COMMAND 24V CIRCUIT BREAKER - 16A	24337	SCHNEIDER	R38115	EL. CABINET	X	X	X	X	
CR-1	RELAY COMMAND ON	ME 51410	MURRELEKTRONIK	R71789	EL. CABINET	X	X	X	X	
CR-2	RELAY SPINDLE CW	ME 61353 + 61340 + 51353	MURRELEKTRONIK	R70883	EL. CABINET	X	X	X	X	
CR-3	RELAY SPINDLE CCW	ME 61353 + 61340 + 51353	MURRELEKTRONIK	R70883	EL. CABINET	X	X	X	X	

* THE MAIN CIRCUIT BREAKER IS CONFIGURED ACCORDING TO THE INCOMING VOLTAGE. SEE ADJUSTMENTS AT PAGE 1A

REL.	MODIFICATION	MODIF.	APROV.	DATE
H	SEE NOTE REL. H AT PAGE 58 A	MARCIO	BAPTISTA	02/04/01
G	SEE NOTE REL. H AT PAGE 58 A	MONTOYA	BAPTISTA	05/02/2001
F	SEE NOTE REL. H AT PAGE 58 A	FRANCISCO	BAPTISTA	12/20/99
E	SEE NOTE REL. G AT PAGE 58 A	BATISTA	GERALDO	15/06/99
D	SEE NOTE 'REL.E' AT PAGE 58A	ROGERIO	GERALDO	8/11/98
C	SEE NOTE 'REL.D' AT PAGE 58A	PABLO	GERALDO	6/18/98
B	SEE NOTE 'REL.B' AT PAGE 58A	PABLO	SILVIO	06/11/97

DESCRIPTION	FUNCTION/DESCRIPTION OF PARTS				
	DESIGNED	PABLO	09/04/1997	PROJECTION	SIZE
	DRAWER	PABLO	09/04/1997		A3
	CONTROLLED	SILVIO	09/05/1997		
REFERENCE	SHEET 46A / 1+	SCALE 1:1	APPLICATION EZPATH-SD V1.0	N°R78537 H	

SIMB	FUNCTION	SUPPLIER CODE	SUPPLIER	P / N ITEM	LOCATION	EZ-I	EZ-II			SPARE PART
						1M	1M	1.5M	2M	
CR-4	RELAY RESET DRIVES	ME 51410	MURRELEKTRONIK	R71789	EL. CABINET	X	X	X	X	
CR-5	RELAY MANUAL MODE	ME 61352 + 61340 + 51353	MURRELEKTRONIK	R70884	EL. CABINET	X	X	X	X	
CR-6	RELAY FOR LUBE PUMP MOTOR	ME 61353 + 61340 + 51353	MURRELEKTRONIK	R70883	EL. CABINET	X	X	X	X	
CR-7	RELAY BAR FEED CYCLE START	ME 51130	MURRELEKTRONIK	R72526	EL. CABINET	OPT	OPT	OPT	OPT	
CR-8	RELAY BAR FEED LATHE AUTO	ME 51130	MURRELEKTRONIK	R72526	EL. CABINET	OPT	OPT	OPT	OPT	
CR-9	RELAY BAR FEED COLLET OPEN	ME 51130	MURRELEKTRONIK	R72526	EL. CABINET	OPT	OPT	OPT	OPT	
CR-10	RELAY CHUCK CLAMP	ME-51410	MURRELEKTRONIK	R71789	EL. CABINET	OPT	OPT	OPT	OPT	
CR-11	RELAY CHUCK UNCLAMP	ME-51410	MURRELEKTRONIK	R71789	EL. CABINET	OPT	OPT	OPT	OPT	
CR-12	RELAY SPINDLE SPEED ZERO	ME-51410	MURRELEKTRONIK	R71789	EL. CABINET	X	X	X	X	
CR-13	RELAY STORE LAST COMMAND	ME 61353 + 61340 + 51353	MURRELEKTRONIK	R70883	EL. CABINET	OPT	OPT	OPT	OPT	
CR-22	SPINDLE LOW SPEED RELAY	ME 61352 + 61340 + 51353	MURRELEKTRONIK	R70884	EL. CABINET	X	X	X	X	
CR-23	SPINDLE HIGH SPEED RELAY	ME 61352 + 61340 + 51353	MURRELEKTRONIK	R70884	EL. CABINET	X	X	X	X	
CR-24	SPINDLE AND DRIVES POWER SUPPLU	ME 6652310	MURRELEKTRONIK	R90235	EL. CABINET	X	X	X	X	
D1-D6	DIODS SPARK KILLER	SK 1/04	SEMIKRON	R72146	EL. CABINET	X	X	X	X	
F 1	INPUT LINE FILTER	01627	POWER	R66804	EL. CABINET	X	X	X	X	
F2-F9	MOTOR SPARK KILLER (CONNECT AT MOTOR TERMINAL)	ME 23050	MURRELEKTRONIK	R70891	MACHINE	X	X	X	X	
F10-F20	SOLENOID SPARK KILLER	ME 3129720	MURRELEKTRONIK	R70890	MACHINE	X	X	X	X	
F21-F23	SPARK KILLER (250V)	KAA 12-250	ICOS	R33793	MACHINE	X	X	X	X	
F24-F26	FERRITE TOROIDAL	681	NOISE RED. SYST.	R84014	EL. CABINET	X	X	X	X	
FTS-1	CHUCK FOOTSWITCH	G999/BR03	KRAUSS NAIMER	R72164	MACHINE	OPT	OPT	OPT	OPT	
FTS-2	TAILSTOCK FOOTSWITCH	G999/BR03	KRAUSS NAIMER	R72164	MACHINE	OPT	OPT	OPT	OPT	
G 1	SPINDLE ENCODER	490.253.19 (1250PPR - ERO426)	DIADUR	085248	MACHINE	X	X	X	X	1
G 2	X AXIS ENCODER	3000 PPR (ATTACHED TO MTR2)			MACHINE	X	X	X	X	
G 3	Z AXIS ENCODER	3000 PPR (ATTACHED TO MTR3)			MACHINE	X	X	X	X	
G 4	X AXIS MANUAL ENCODER	459.259.01	DIADUR	R72579	MACHINE	X	X	X	X	
G 5	Z AXIS MANUAL ENCODER	459.259.01	DIADUR	R72579	MACHINE	X	X	X	X	
H-1	HOUR METER	R68403	ROMI	R68403	EL. CABINET	X	X	X	X	
J 1	CONNECTOR FOR POWER X AXIS MOTOR	MS3106F18-10S	ITT CANNON	R37991	MACHINE	X	X	X	X	
J 2	CONNECTOR FOR X AXIS MOTOR ENCODER	MS3106F20-29S	ITT CANNON	R31023	MACHINE	X	X	X	X	
J 3	CONNECTOR FOR POWER Z AXIS MOTOR	MS3108R18-10S-C/P	ITT CANNON	R37992	MACHINE	X	X	X	X	
J 4	CONNECTOR FOR Z AXIS ENCODER	MS3108R20-29S + M85049/41-12A	ITT CANNON	R33913	MACHINE	X	X	X	X	

OR

REL.	MODIFICATION	MODIF.	APROV.	DATE
H	SEE NOTE REL. H AT PAGE 58 A	MARCIO	BAPTISTA	02/04/98
G	SEE NOTE REL. H AT PAGE 58 A	MONTOYA	BAPTISTA	09/02/2000

REL.	MODIFICATION	MODIF.	APROV.	DATE
F	SEE NOTE REL. H AT PAGE 58 A	FRANCISCO	BAPTISTA	10/26/98
E	SEE NOTE REL. G AT PAGE 58 A	BATISTA	GERALDO	10/08/98
D	SEE NOTE 'RELE' AT PAGE 58A	ROGERIO	GERALDO	9/11/98
C	SEE NOTE 'RELO' AT PAGE 58A	PABLO	GERALDO	6/18/98
B	SEE NOTE 'REL.B' AT PAGE 58A	PABLO	SILVIO	06/11/97

DESCRIPTION: FUNCTION/DESCRIPTION OF PARTS

DESIGNED	PABLO	09/04/1997	PROJECTION
DRAWER	PABLO	09/04/1997	SIZE A3
CONTROLLED	SILVIO	09/05/1997	

REFERENCE	SHEET	SCALE	APPLICATION	N°R78537 H
	46A / 2+	1:1	EZPATH-SD V1.0	

SIMB	FUNCTION	SUPPLIER CODE	SUPPLIER	P / N ITEM	LOCATION	EZ-I	EZ-II			SPARE PART
						1M	1M	1.5M	2M	
J 5	CONNECTOR FOR SPINDLE ENCODER	163087-6 (SOCKET HOUSING)	AMP	063541	MACHINE	X	X	X	X	
		163085-6 (SOCKET)	AMP	063561	MACHINE	X	X	X	X	
		206705-1 (PINS HOUSING)	AMP	063542	MACHINE	X	X	X	X	
		881461-2 (PINS)	AMP	063560	MACHINE	X	X	X	X	
		206966-1 (CABLE CLAMP)	AMP	063543	MACHINE	X	X	X	X	
J 6	CONNECTOR FOR X AXIS ENCODER HANDWHEEL	206-708-1 (SOCKET HOUSING)	AMP	063541	MACHINE	X	X	X	X	
		163087-6 (SOCKET)	AMP	063561	MACHINE	X	X	X	X	
		206705-1 (PINS HOUSING)	AMP	063542	MACHINE	X	X	X	X	
		163085-6 (PINS)	AMP	063560	MACHINE	X	X	X	X	
		206966-1 (CABLE CLAMP)	AMP	063543	MACHINE	X	X	X	X	
J 7	CONNECTOR FOR Z AXIS ENCODER HANDWHEEL	206-708-1 (SOCKET HOUSING)	AMP	063541	MACHINE	X	X	X	X	
		163087-6 (SOCKET)	AMP	063561	MACHINE	X	X	X	X	
		163085-6 (PINS HOUSING)	AMP	063542	MACHINE	X	X	X	X	
		881461-2 (PINS)	AMP	063560	MACHINE	X	X	X	X	
		206966-1 (CABLE CLAMP)	AMP	063543	MACHINE	X	X	X	X	
J15	CONNECTOR FOR RS 232C SYSTEM	ME-676070	MURRELEKTRONIK	R79098	OP. PANEL	X	X	X	X	
J16	AUXILIAR POWER PLUG	BELONGS TO J15 CONNECT. SET			OP. PANEL	X	X	X	X	
J18	CONNECTOR FOR BAR FEEDER	PBP24B	KAP	R67789	MACHINE	OPT	OPT	OPT	OPT	
		PBP24L	KAP	R67986	MACHINE	OPT	OPT	OPT	OPT	
		PBH24M	KAP	P51607	MACHINE	OPT	OPT	OPT	OPT	
		PBH24F	KAP	P51606	MACHINE	OPT	OPT	OPT	OPT	
J19	CONNECTOR FOR PUMP COOLANT	PB06A	KAP	012373	MACHINE	X	X	X	X	
		PBH06F	KAP	012375	MACHINE	X	X	X	X	
		PB06L	KAP	012372	MACHINE	X	X	X	X	
		PBH06M	KAP	012374	MACHINE	X	X	X	X	
J20	CONNECTOR OPERATOR'S PANEL	206043-1 (SOCKET HOUSING)	AMP	R52351	OP. PANEL	X	X	X	X	
		66504-0 (SOCKET)	AMP	065700	OP. PANEL	X	X	X	X	
		206044-1 (PINS HOUSING)	AMP	R52355	OP. PANEL	X	X	X	X	
		206070-1 (CABLE CLAMP)	AMP	R52354	OP. PANEL	X	X	X	X	
		66506-0 (PINS)	AMP	P88647	OP. PANEL	X	X	X	X	
J21	CONNECTOR OPERATOR'S REMOTE CONTROL	205-207-1 (SOCKET HOUSING)	AMP	065699	OP. REMOTE	X	X	X	X	
		66504-0 (SOCKET)	AMP	065700	OP. REMOTE	X	X	X	X	
		205-208-1 (PINS HOUSING)	AMP	P88645	OP. REMOTE	X	X	X	X	
		880117-3 (CABLE CLAMP)	AMP	P89274	OP. REMOTE	X	X	X	X	
		66506-0 (PINS)	AMP	P88647	OP. REMOTE	X	X	X	X	

OR

REL.	MODIFICATION	MODIF.	APROV.	DATE
H	SEE NOTE REL. K AT PAGE 58 A	MARCIO	BAPTISTA	02/04/98
G	SEE NOTE REL. H AT PAGE 58 A	MONTOYA	BAPTISTA	26/02/2000

REL.	MODIFICATION	MODIF.	APROV.	DATE
F	SEE NOTE REL. H AT PAGE 58 A	FRANCISCO	BAPTISTA	10/25/99
E	SEE NOTE REL. G AT PAGE 58 A	BATISTA	GERALDO	15/05/98
D	SEE NOTE 'RELE' AT PAGE 58A	ROGERIO	GERALDO	9/16/98
C	SEE NOTE 'RELD' AT PAGE 58A	PABLO	GERALDO	6/18/98
B	SEE NOTE 'RELB' AT PAGE 58A	PABLO	SILVIO	06/11/97

DESCRIPTION: FUNCTION/DESCRIPTION OF PARTS

DESIGNED	PABLO	09/04/1997
DRAWER	PABLO	09/04/1997
CONTROLLED	SILVIO	09/05/1997

PROJECTION | SIZE: A3

REFERENCE	SHEET	SCALE	APPLICATION	N°R78537 H
	46A / 3+	1:1	EZPATH-SD V1.0	

SIMB	FUNCTION	SUPPLIER CODE	SUPPLIER	P / N ITEM	LOCATION	EZ-I	EZ-II			SPARE PART
						1M	1M	1.5M	2M	
J25	CHIP CONVEYOR CONNECTOR	09.30.006.0302	HARTING	R67788	MACHINE	OPT	OPT	OPT	OPT	
		09.33.006.2701	HARTING	Q12375	MACHINE	OPT	OPT	OPT	OPT	
		09.30.006.1540 + 09.00.000.5014	HARTING	Q12372	MACHINE	OPT	OPT	OPT	OPT	
		09.33.006.2601	HARTING	Q12374	MACHINE	OPT	OPT	OPT	OPT	
K 1	SPINDLE AND DRVS POWER SUPPLY CONTACTOR	LC1-D5011-F7	SCHNEIDER	099608	EL. CABINET	X	X	X	X	
	AUXILIAR CONTACTS BLOCK 1NO+1NC	LA1-D11	SCHNEIDER	P71004	EL. CABINET	X	X	X	X	
K 2	COOLANT PUMP MOTOR CONTACTOR	LP1-K0601BD	SCHNEIDER	R57651	EL. CABINET	X	X	X	X	
K 6	SPINDLE HIGH SPEED CONTACTOR	LC1-D3201-F7	SCHNEIDER	R47556	EL. CABINET	X	X	X	X	
K 7	SPINDLE LOW SPEED CONTACTOR	LC1-D5011-F7	SCHNEIDER	099608	EL. CABINET	X	X	X	X	
	AUXILIAR CONTACTS BLOCK 1NO+1NC	LA1-D11	SCHNEIDER	P71004	EL. CABINET	X	X	X	X	
K 10	TURRET MOTOR CONTACTOR	LP1-K0601BD	SCHNEIDER	R57651	EL. CABINET	OPT	OPT	OPT	OPT	
K 11	TURRET MOTOR CONTACTOR	LP1-K0601BD	SCHNEIDER	R57651	EL. CABINET	OPT	OPT	OPT	OPT	
L 1	SPINDLE OFF LAMP	P9SLVD + P9PDNFD	GE RICHMOND	R70756	OP. PANEL	X	X	X	X	1
L 2	MACHINE LAMP	TLDRS 32/84	PHILIPS	R72989	MACHINE	X	X	-	-	1
		L58/21	OSRAM	R76787	MACHINE	-	-	X	-	1
		L30 LDE	OSRAM	R76788	MACHINE	-	-	-	X	1
L 3	MACHINE LAMP	TLDRS 32/84	PHILIPS	R72989	MACHINE	X	X	-	-	1
		L58/21	OSRAM	R76787	MACHINE	-	-	X	-	1
		L30 LDE	OSRAM	R76788	MACHINE	-	-	-	X	1
L 4	MACHINE LAMP	L30 LDE	OSRAM	R76788	MACHINE	-	-	-	X	1
L 5	MACHINE LAMP	L30 LDE	OSRAM	R76788	MACHINE	-	-	-	X	1
L3~L6	MACHINE LAMP	L30 LDE	OSRAM	R76788	MACHINE	-	SPE	SPE	SPE	1
MTR	TURRET MOTOR	SEE MECHANICAL PARTS LIST			MACHINE	OPT	OPT	OPT	OPT	
MTR 1	SPINDLE MOTOR	DC 4901 - 6 PHASES MTR 20CV	EBERLE	R77457	MACHINE	-	X	X	X	
		DC 4902 - 6 PHASES MTR 7.5CV	EBERLE	R77458	MACHINE	X	-	-	-	
MTR 2	X AXIS MOTOR		YASKAWA	R71238	MACHINE	X	X	X	X	
	AC SERVO MOTOR (3NM)	SGMG-05A2AB	YASKAWA	R69706	MACHINE	X	X	X	X	
	SAILING OF THE SERVO MOTOR	SC30458	YASKAWA	R70467	MACHINE	X	X	X	X	

REL	MODIFICATION	MODIF.	APROV.	DATE
H	SEE NOTE REL. H AT PAGE 58 A	MARCIO	BAPTISTA	02/04/98
G	SEE NOTE REL. H AT PAGE 58 A	MONTOYA	BAPTISTA	09/02/2000

REL	MODIFICATION	MODIF.	APROV.	DATE
F	SEE NOTE REL. H AT PAGE 58 A	FRANCISCO	BAPTISTA	10/25/99
E	SEE NOTE REL. G AT PAGE 58 A	BATISTA	GERALDO	10/06/98
D	SEE NOTE 'RELE' AT PAGE 58A	ROGERIO	GERALDO	9/11/98
C	SEE NOTE 'RELD' AT PAGE 58A	PABLO	GERALDO	6/18/98
B	SEE NOTE 'RELB' AT PAGE 58A	PABLO	SILVIO	06/11/97

DESCRIPTION	FUNCTION/DESCRIPTION OF PARTS			
	DESIGNED	PABLO	09/04/1997	PROJECTION
	DRAWER	PABLO	09/04/1997	SIZE A3
	CONTROLLED	SILVIO	09/05/1997	
REFERENCE	SHEET 46A / 4+	SCALE 1:1	APPLICATION EZPATH-SD V1.0	N°R78537 H

SIMB	FUNCTION	SUPPLIER CODE	SUPPLIER	P / N ITEM	LOCATION	EZ-I	EZ-II			SPARE
						1M	1M	1.5M	2M	PART
MTR 3	Z AXIS MOTOR		YASKAWA	R71239	MACHINE	-	X	X	X	
	AC SERVO MOTOR (6NM)	SGMG-09A2AB	YASKAWA	R69708	MACHINE	-	X	X	X	
	SEALING OF THE SERVO MOTOR	SC30458	YASKAWA	R70467	MACHINE	-	X	X	X	
	Z AXIS MOTOR		YASKAWA	R71238	MACHINE	X	-	-	-	
	AC SERVO MOTOR (3NM)	SGMG-05A2AB	YASKAWA	R69706	MACHINE	X	-	-	-	
	SEALING OF THE SERVO MOTOR	SC30458	YASKAWA	R70467	MACHINE	X	-	-	-	
MTR 4	BLOWER OF SPINDLE MOTOR	ATTACHED TO THE MOTOR			MACHINE	X	X	X	X	
MTR 5	DYNAMIC BRAKE RESISTOR FAN-MASTER UNIT	ATTACHED TO THE RESIST. UNIT			EL. CABINET	X	X	X	X	
MTR 6	FLOOD MOTOR	SEE MECHANICAL PARTS LIST			MACHINE	X	X	X	X	
MTR 7	LUBE PUMP MOTOR	SEE MECHANICAL PARTS LIST			MACHINE	X	X	X	X	
MTR 8	ELECTRIC CABINET FAN MOTOR	SK3323100	RITTAL	R76283	EL. CABINET	X	X	X	X	
	AIR FILTER	SK3161100	RITTAL	R76284	EL. CABINET	X	X	X	X	2
MTR12	DYNAMIC BRAKE RESISTOR FAN-SLAVE UNIT	ATTCHED TO THE RESISTOR UNIT			EL. CABINET	-	X	X	X	
MOL 2	FLOOD MOTOR THERMAL RELAY	LR2-K0310 (ADJ. 2,75 AMPS)	SCHNEIDER	R57661	EL. CABINET	X	X	X	X	
	FLOOD MOTOR THERMAL RELAY	LR2-K0308 (ADJ. 2,4 AMPS)	SCHNEIDER	R57660	EL. CABINET	-	SPE	SPE	SPE	
MOL 3	SPINDLE MOTOR BLOWER THERMAL RELAY	LR2-K0305 (ADJ. 0,6 AMPS)	SCHNEIDER	R57658	EL. CABINET	X	X	X	X	
	THERMAL RELAY SUPPORT	LA7-K0064	SCHNEIDER	R57653	EL. CABINET	X	X	X	X	
MOL 10	TURRET MOTOR THERMAL RELAY	LR2-K0314 (ADJ. 6,0 AMPS)	SCHNEIDER	R57663	EL. CABINET	OPT	OPT	OPT	OPT	
N 1	CNC DX32R (STANDARD)	PC WITH FLASH MEMORY	ROMI	R72071	EL. CABINET	X	X	X	X	
	CNC DX32R (OPTIONAL)	PC WITH HARD DISK	ROMI	R72072	EL. CABINET	X	X	X	X	
N 2	CONEXP	R71977	ROMI	R71977	EL. CABINET	X	X	X	X	
	GPAUFR	R72213	ROMI	R72213	EL. CABINET	X	X	X	X	
N 3	FLOPPY DISK DRIVE MODULE	FD235 HF7429	TEAC	R69315	OP. PANEL	X	X	X	X	
		D359T5 5V	MITSUMI	R69315	OP. PANEL	X	X	X	X	
N 4	ASSEMBLED KEYBOARD MODULE	R72080	ROMI	R72080	OP. PANEL	X	X	X	X	
	KEYBOARD + EPROM	90400-069/0001	PREH	R70735	OP. PANEL	X	X	X	X	
	KEYS SET	13013-065/0000	PREH	R70736	OP. PANEL	X	X	X	X	
N 5	CRT MODULE	V24000-100	DISPLAY	R70753	OP. PANEL	SPE	SPE	SPE	SPE	
	WAYTEC MONITOR	MMSV-0910	WAYTEC	R81528	OP. PANEL	X	X	X	X	
N 6	LOAD METER	R72069	ROMI	R72069	OP. PANEL	X	X	X	X	
N 9	REACTOR	HF - B 232	PHILIPS	R72988	MACHINE	X	X	-	-	1
		OTIS-B-2X58W	OSRAM	R76786	MACHINE	-	-	X	-	1
		OTIS-B-2X36W	OSRAM	R76784	MACHINE	-	-	-	X	1
N 10	REACTOR	OTIS-B-2X36W	OSRAM	R76784	MACHINE	-	-	-	X	1

OR

REL.	MODIFICATION	MODIF.	APROV.	DATE
H	SEE NOTE REL. K AT PAGE 58 A	MARCIO	BAPTISTA	02/04/01
G	SEE NOTE REL. H AT PAGE 58 A	MONTOYA	BAPTISTA	05/02/2000

REL.	MODIFICATION	MODIF.	APROV.	DATE
F	SEE NOTE REL. H AT PAGE 58 A	FRANCISCO	BAPTISTA	10/28/99
E	SEE NOTE REL. G AT PAGE 58 A	BATISTA	GERALDO	15/06/99
D	SEE NOTE 'REL.E' AT PAGE 58A	ROGERIO	GERALDO	9/11/98
C	SEE NOTE 'REL.D' AT PAGE 58A	PABLO	GERALDO	6/18/98
B	SEE NOTE 'REL.B' AT PAGE 58A	PABLO	SILVIO	06/11/97

DESCRIPTION: FUNCTION/DESCRIPTION OF PARTS

DESIGNED	PABLO	09/04/1997	PROJECTION
DRAWER	PABLO	09/04/1997	SIZE A3
CONTROLLED	SILVIO	09/05/1997	

REFERENCE	SHEET	SCALE	APPLICATION	N°R78537 H
	46A / 5+	1:1	EZPATH-SD V1.0	

SIMB	FUNCTION	SUPPLIER CODE	SUPPLIER	P / N ITEM	LOCATION	EZ-I	EZ-II			SPARE PART
						1M	1M	1.5M	2M	
N 14	MASTER DISCHARGE RESISTOR UNIT 6R-2KW	R67328	JAKKO	R67328	EL. CABINET	X	X	X	X	1
N 15	SLAVE DISCHARGE RESISTOR UNIT 6R-2KW	R67328	JAKKO	R67328	EL. CABINET	-	X	X	X	
N16-N17	REACTOR	OTIS 16/32W DIGITAL	OSRAM	R94218	MACHINE	-	SPE	SPE	SPE	1
NR-1	MASTER DYNAMIC CONTROL UNIT	R67296 - 6R/2KW	ROMI	R67296	EL. CABINET	X	X	X	X	
NR-2	SLAVE DYNAMIC CONTROL UNIT	R71076 - 6R/2KW	ROMI	R71076	EL. CABINET	-	X	X	X	
PE	GROUNDIG LUG	R73825	DIDE	R73825	EL. CABINET	X	X	X	X	
PS-1	POWER SUPPLY - 24V / 10A	ME 89501	MURRELEKTRONIK	R70888	EL. CABINET	X	X	X	X	
PS-2	CRT POWER SUPPLY	SNP-9547	SKYNET	R69429	OP. PANEL	X	X	X	X	
R1	PULL-UP RESISTOR FOD SIGNAL CABLE	2306 101 7333 1	PHILIPS	P87157	OP. PANEL	X	X	X	X	
S 1	LIMIT SWITCH X AXIS REFERENCE	SL1-EK (YAMATAKE)	HONEYWELL	R38072	MACHINE	X	X	X	X	1
S 2	LIMIT SWITCH Z AXIS REFERENCE	SL1-DK-J	HONEYWELL	R53509	MACHINE	X	X	X	X	1
S 3	PROXIMITY SWITCH OF SPINDLE CW	XS1-D12PA140	SCHNEIDER	R12175	OP. PANEL	X	X	X	X	
S 4	PROXIMITY SWITCH OF SPINDLE CCW	XS1-D12PA140	SCHNEIDER	R12175	OP. PANEL	X	X	X	X	
S 7	CONSOLE ENGAGED / DESENGAGED PROXIMITY SWITCH	XS1-D12PA140	SCHNEIDER	R12175	MACHINE	X	X	X	X	
S 9	DOOR GUARD AND INTERLOCK	171514	ACE	R71884	MACHINE	X	X	X	X	
S 10	PROXIMITY SWITCH CHUCK OPENED	XS1-D12PA140	SCHNEIDER	R12175	MACHINE	OPT	OPT	OPT	OPT	
S 11	PROXIMITY SWITCH CHUCK WITHOUT PART	XS1-D12PA140	SCHNEIDER	R12175	MACHINE	OPT	OPT	OPT	OPT	
S 20	JOG BUTTOM OF OPERATOR'S PANEL	P9SSMD3N + P9B10FN + P9B01FN	GE	R70755						
S 21	HOLD BUTTOM OF OPERATOR'S PANEL	P9SPNRG + P9B10FN	GE	R70757	OP. PANEL	X	X	X	X	
S 22	START BUTTOM OF OPRATOR'S PANEL	P9SPNVG + P9B10FN	GE	R70758	OP. PANEL	X	X	X	X	
S 23	START BUTTOM OF OPERAT. REMOTE CONTROL	P9SPNVG + P9B10FN	GE	R70758	OP. REMOTE	X	X	X	X	
S 24	SELECT BUTTON OFF OPERATOR'S REMOTE	P9SPNNG + P9B10FN	GE	R70950	OP. REMOTE	X	X	X	X	
S 25	EMERGENCY STOP BUTTOM OF OPERAT. PANEL	P9MER4RN + P9B01FN + P9B01FN	GE	R70389	OP. PANEL	X	X	X	X	
S 26	HOLD BUTTOM OF OPERAT. REMOTE CONTROL	P9SPNRG + P9B10FN	GE	R70757	OP. REMOTE	X	X	X	X	
S 27	SPINDLE LOW SPEED SELECT. PB AND LIGHT	P9SPLBGD + P9PDNFD + P9B10FN	GE	R78794	OP. REMOTE	X	X	X	X	
S 28	SPINDLE HIGH SPEED SELECT. PB AND LIGHT	P9SPLBGD + P9PDNFD + P9B10FN	GE	R78794	OP. REMOTE	X	X	X	X	
S 30	EMERGENCY STOP BUTTOM OF OPERAT. REMOTE	P9MER4RN + P9B01FN + P9B01FN	GE	R70389	OP. REMOTE	X	X	X	X	
S 40	MAIN AIR PRESSURE SWITCH	SEE MECHANICAL PARTS LIST			MACHINE	X	X	X	X	
S 41	LUBE PRESSURE SWITCH	SEE MECHANICAL PARTS LIST			MACHINE	X	X	X	X	
S 42	TAILSTOCK PRESSURE SWITCH	SEE MECHANICAL PARTS LIST			MACHINE	OPT	OPT	OPT	OPT	

OR

REL.	MODIFICATION	MODIF.	APROV.	DATE
H	SEE NOTE REL. H AT PAGE 5B A	MARCIO	BAPTISTA	02/04/01
G	SEE NOTE REL. H AT PAGE 5B A	MONTOYA	BAPTISTA	09/02/2000
F	SEE NOTE REL.H AT PAGE 5B A	FRANCISCO	BAPTISTA	12/26/99
E	SEE NOTE REL.G AT PAGE 5B A	BATISTA	GERALDO	10/05/99
D	SEE NOTE 'RELE' AT PAGE 52A	ROGERIO	GERALDO	9/11/98
C	SEE NOTE 'RELD' AT PAGE 52A	PABLO	GERALDO	6/19/98
B	SEE NOTE 'RELB' AT PAGE 52A	PABLO	SILVIO	06/11/97

DESCRIPTION	FUNCTION/DESCRIPTION OF PARTS				
	DESIGNED	PABLO	09/04/1997	PROJECTION	SIZE
	DRAWER	PABLO	09/04/1997		A3
	CONTROLLED	SILVIO	09/05/1997		
REFERENCE	SHEET 46A / 6+	SCALE 1:1	APPLICATION EZPATH-SD V1.0	N°R78537 H	

SIMB	FUNCTION	SUPPLIER CODE	SUPPLIER	P / N ITEM	LOCATION	EZ-I	EZ-II			SPARE PART
						1M	1M	1.5M	2M	
S43	INDEX TURRET PUSH BOTTOM	SEE MECHANICAL PARTS LIST			MACHINE	X	X	X	X	
SOL-1	SOLENOID UNCLAMP PNEUMATIC CHUCK	SEE MECHANICAL PARTS LIST			MACHINE	X	X	X	X	
SOL-2	SOLENOID CLAMP PNEUMATIC CHUCK	SEE MECHANICAL PARTS LIST			MACHINE	X	X	X	X	
SOL-3	TRANSFORMER PANEL INTERLOCK			R72165	MACHINE	X	X	X	X	
	TRANSFORMER PANEL INTERLOCK	A-EK115NDH	HOFFMAN	R68857	MACHINE	X	X	X	X	
SOL-6	SOLENOID TAILSTOCK ADVANCED	SEE MECHANICAL PARTS LIST			MACHINE	OPT	OPT	OPT	OPT	
SOL-7	SOLENOID TAILSTOCK RETRACT	SEE MECHANICAL PARTS LIST			MACHINE	OPT	OPT	OPT	OPT	
SOL-8	SOLENOID CHUCK UNCLAMPED	SEE MECHANICAL PARTS LIST			MACHINE	OPT	OPT	OPT	OPT	
SOL-9	SOLENOID CHUCK CLAMPED	SEE MECHANICAL PARTS LIST			MACHINE	OPT	OPT	OPT	OPT	
SR-1	SAFETY RELAY 24V	23017 (MSR6R/T 24VAC/DC)	GUARD MASTER	R70803	EL. CABINET	X	X	X	X	
	CONNECTIONS MODULE	ME 676147	MURRELEKTRONIK	R70953	EL. CABINET	X	X	X	X	
T 1	INPUT TRANSFORMER ADAPTER OF VOLTAGE	AUTO TRANSF 25KVA - USA	WALTEC	R79499	MACHINE	-	X	X	X	
		AUTO TRANSF. 25KVA - WORLD/CE	WALTEC	R75727	MACHINE	-	X	X	X	
		AUTO TRANSF. 20KVA - USA	WALTEC	R79498	MACHINE	X	-	-	-	
		AUTO TRANSF. 20KVA - WORLD/CE	WALTEC	R75726	MACHINE	X	-	-	-	
T 2	TRANSFORMER FOR COMMAND LINE	1 PHASE TRANSF 1.0KVA	WALTEC	R77858	EL. CABINET	X	X	X	X	
V	RELAY SPARK KILLER	ATTACHED TO RELAY			EL. CABINET	X	X	X	X	
W 1	SPINDLE ENCODER CABLE		LOTUS	R78948	EL.CABINET	X	X	X	X	
W 2	SPINDLE MOTOR CABLE		LOTUS	R77830	EL.CABINET	X	X	X	X	
W 3	LOAD METER CABLE		LOTUS	R78986	EL.CABINET	X	X	X	X	
W 5	X AXIS MOTOR CABLE		LOTUS	R77840	EL.CABINET	X	X	X	X	
W 6	X AXIS MTR ENCODER SIGNAL CABLE TO DRV.		LOTUS	R77828	EL.CABINET	X	X	X	X	
W 7	Z AXIS MOTOR CABLE		LOTUS	R77841	EL.CABINET	X	X	X	X	
W 8	Z AXIS MTR ENCODER SIGNAL CABLE TO DRV.		LOTUS	R77827	EL.CABINET	X	X	X	X	
W 9	X AXIS MANUAL ENCODER CABLE		LOTUS	R78949	EL.CABINET	X	X	X	X	
W 10	Z AXIS MANUAL ENCODER CABLE		LOTUS	R78950	EL.CABINET	X	X	X	X	
W 11	FLOPPY DISK POWER SUPPLY CABLE		LOTUS	R78951	EL.CABINET	X	X	X	X	
W 12	CRT POWER SUPPLY CABLE		LOTUS	R78957	EL.CABINET	X	X	X	X	
W 13	RS 232 CABLE		LOTUS	R78953	EL.CABINET	X	X	X	X	
W 14	FLOPPY DISK SIGNAL CABLE		LOTUS	R78954	EL.CABINET	X	X	X	X	
W 15	KEYBOARD CABLE		LOTUS	R78997	EL.CABINET	X	X	X	X	
W 16	VGA MONITOR CABLE		LOTUS	R78998	EL.CABINET	X	X	X	X	

REL.	MODIFICATION	MODIF.	APROV.	DATE
H	SEE NOTE REL. H AT PAGE 58 A	MARCIO	BAPTISTA	02/04/01
G	SEE NOTE REL. H AT PAGE 58 A	MONTOYA	BAPTISTA	09/02/2000

REL.	MODIFICATION	MODIF.	APROV.	DATE
F	SEE NOTE REL. H AT PAGE 58 A	FRANCISCO	BAPTISTA	10/26/99
E	SEE NOTE REL. G AT PAGE 58 A	BATISTA	GERALDO	10/05/99
D	SEE NOTE 'REL.E' AT PAGE 58A	ROGERIO	GERALDO	9/10/99
C	SEE NOTE 'REL.D' AT PAGE 58A	PABLO	GERALDO	6/18/98
B	SEE NOTE 'REL.B' AT PAGE 58A	PABLO	SILVIO	06/11/97

DESCRIPTION	FUNCTION/DESCRIPTION OF PARTS			
	DESIGNED	PABLO	09/04/1997	PROJECTION
	DRAWER	PABLO	09/04/1997	SIZE A3
	CONTROLLED	SILVIO	09/05/1997	
REFERENCE	SHEET 46A / 7+	SCALE 1:1	APPLICATION EZPATH-SD V1.0	N°R78537 H

SIMB	FUNCTION	SUPPLIER CODE	SUPPLIER	P / N ITEM	LOCATION	EZ-I	EZ-II			SPARE PART
						1M	1M	1.5M	2M	
W 17	CONEXP SIGNAL CABLE		LOTUS	R72142	EL.CABINET	X	X	X	X	
W 18	REMOTE CONTROL CABLE		LOTUS	R78955	EL.CABINET	X	X	X	X	
W 19	CB1 - F1 CABLE		LOTUS	R77634	EL.CABINET	X	X	X	X	
W 20	CB1 - T1 CABLE		LOTUS	R79035	EL.CABINET	X	X	X	X	
W 21	F1 - T1 CABLE		LOTUS	R79036	EL.CABINET	X	X	X	X	
W 22	T1 - K1 CABLE		LOTUS	R79038	EL.CABINET	X	X	X	X	
W 23	ANALOGIC SPINDLE CABLE		LOTUS	R78815	EL.CABINET	X	X	X	X	
W 24	BAR FEEDER POWER CABLE		LOTUS	R80205	EL.CABINET	X	X	X	X	
W 25	BLOWER SPINDLE CABLE		LOTUS	R78989	EL.CABINET	X	X	X	X	
W 26	GABINET FAN CABLE		LOTUS	R78987	EL.CABINET	X	X	X	X	
W 27	AUXILIARY 220V PLUG CABLE		LOTUS	R78838	EL.CABINET	X	X	X	X	
W 28	DISCHARGE RESISTOR UNIT FAN MASTER CABLE		LOTUS	R78990	EL.CABINET	X	X	X	X	
W 29	DISCHARGE RESISTOR UNIT FAN SLAVE CABLE		LOTUS	R78991	EL.CABINET	X	X	X	X	
W 30	ICN (A2.A3) CONNECTOR CABLE		LOTUS	R79959	EL.CABINET	X	X	X	X	
W 31	S1 MICRO CABLE		LOTUS	R78963	EL.CABINET	X	X	X	X	
W 32	S2 MICRO CABLE		LOTUS	R78964	EL.CABINET	X	X	X	X	
W 33	CONTROL PANEL CABLE		LOTUS	R78956	EL.CABINET	X	X	X	X	
W 34	PE - X3 CABLE		LOTUS	R78958	EL.CABINET	X	X	X	X	
W 35	TRANSFORMER CABINET DOOR INTERLOCK CABLE		LOTUS	R78959	EL.CABINET	X	X	X	X	
W 36	LUBE PUMP MOTOR CABLE		LOTUS	R78961	EL.CABINET	X	X	X	X	
W 37	LOW LUBE PRESSURE SWITCH CABLE		LOTUS	R78952	EL.CABINET	X	X	X	X	
W 38	COOLANT PUMP MOTOR CABLE		LOTUS	R78960	EL.CABINET	X	X	X	X	
W 39	CHUCK AND TAILSTOCK FOOTSWITCHES CABLE		LOTUS	R78969	EL.CABINET	X	X	X	X	
W 40	PNEUMATIC CHUCK CABLE		LOTUS	R87007	EL.CABINET	X	X	X	X	
W 41	PNEUMATIC CHUCK SENSOR CABLE		LOTUS	R87008	EL.CABINET	X	X	X	X	
W 42	PNEUMATIC TAILSTOCK PRESSURE SWITCH CABLE		LOTUS	R87005	EL.CABINET	X	X	X	X	
W 43	CHIP CONVEYOR CABLE		LOTUS	R79131	EL.CABINET	X	X	X	X	
W 44	EIGHT POSITIONS TURRET CABLE		LOTUS	R88745	EL.CABINET	X	X	X	X	
W 45	BAR FEEDER CABLE		LOTUS	R78968	EL.CABINET	X	X	X	X	
W 46	REMOTE CONTROL CABLE		LOTUS	R95190	EL.CABINET	X	X	X	X	
W 50	WAYTEC MONITOR CABLE		LOTUS	S01256	EL.CABINET	X	X	X	X	
W 51	WAYTEC MONITOR POWER SUPPLY CABLE		LOTUS	S01255	EL.CABINET	X	X	X	X	

(OR)

REL.	MODIFICATION	MODIF.	APROV.	DATE
H	SEE NOTE 'REL.H' AT PAGE 58 A	MARCIO	BAPTISTA	02/04/01
G	SEE NOTE 'REL.H' AT PAGE 58 A	MONTOYA	BAPTISTA	09/02/2000

REL.	MODIFICATION	MODIF.	APROV.	DATE
F	SEE NOTE 'REL.H' AT PAGE 58 A	FRANCISCO	BAPTISTA	12/05/99
E	SEE NOTE 'REL.G' AT PAGE 58 A	BATISTA	GERALDO	16/06/99
D	SEE NOTE 'REL.E' AT PAGE 58A	ROGERIO	GERALDO	9/11/98
C	SEE NOTE 'REL.D' AT PAGE 58A	PABLO	GERALDO	6/18/98
B	SEE NOTE 'REL.B' AT PAGE 58A	PABLO	SILVIO	06/11/97

DESCRIPTION: FUNCTION/DESCRIPTION OF PARTS

DESIGNED	PABLO	09/04/1997
DRAWER	PABLO	09/04/1997
CONTROLLED	SILVIO	09/05/1997

PROJECTION | SIZE: A3

REFERENCE	SHEET	SCALE	APPLICATION	N°R78537 H
	46A / 8+	1:1	EZPATH-SD V1.0	

SIMB	FUNCTION	SUPPLIER CODE	SUPPLIER	P / N ITEM	LOCATION	EZ-I	EZ-II			SPARE
						1M	1M	1.5M	2M	PART
X 1	ELECTRICAL CABINET TERMINAL BLOCK				EL.CABINET	X	X	X	X	
X 2	ELECTRICAL CABINET TERMINAL BLOCK				EL.CABINET	X	X	X	X	
X 3	DOOR INTERLOCK AND LAMP REACTOR TERMINAL BLOCK				MACHINE	X	X	X	X	

OR

REL.	MODIFICATION	MODIF.	APROV.	DATE
H	SEE NOTE REL. H' AT PAGE 58 A	HARCID	BAPTISTA	02/04/98
G	SEE NOTE REL. H AT PAGE 58 A	MONTOYA	BAPTISTA	09/02/2000

REL.	MODIFICATION	MODIF.	APROV.	DATE
F	SEE NOTE REL. H AT PAGE 58 A	FRANCISCO	BAPTISTA	10/26/99
E	SEE NOTE REL. G' AT PAGE 58 A	BATISTA	GERALDO	10/26/99
D	SEE NOTE 'REL.E' AT PAGE 58A	ROGERIO	GERALDO	9/11/98
C	SEE NOTE 'REL.D' AT PAGE 58A	PABLO	GERALDO	6/15/98
B	SEE NOTE 'REL.B' AT PAGE 58A	PABLO	SILVIO	06/11/97

DESCRIPTION	FUNCTION/DESCRIPTION OF PARTS			
	DESIGNED	PABLO	09/04/1997	PROJECTION
	DRAWER	PABLO	09/04/1997	
	CONTROLLED	SILVIO	09/05/1997	SIZE A3
REFERENCE	SHEET 46A / 9-	SCALE 1:1	APPLICATION EZPATH-SD V1.0	N°R78537 H

DESCRIPTION:

THIS MACHINE IS EQUIPPED WITH POWER ELECTRONIC DEVICES OF LAST GENERATION TO PERFORM THE CONTROL AND OPERATION OF THE X AND Z AXIS PLUS THE SPINDLE.

THESE DEVICES ARE CALLED DRIVES AND FREQUENCY INVERTER.

FOR THE BEST AXIS/SPINDLE PERFORMANCE AND ACCURACY THERE ARE SEVERAL SETUP PARAMETERS IN THESE MODULES.

THOSE PARAMETERS ARE DESCRIBED AND SPECIFIED IN THIS MANUAL.

BEYOND THE ABOVE MENTIONED PARAMETERS, THERE ARE ALSO A SET OF MACHINE CONFIGURATION PARAMETERS IN THE EXECUTIVE FRONT-END SOFTWARE, HERE CALLED SIMPLY AS SOFTWARE.

ALL THESE PARAMETERS ARE TUNNED, SPECIFIED AND CONTROLLED BY THE ROMI PRODUCT ENGINEERING. NO CHANGES ARE PERMITTED WITHOUT ROMI OR BMI NOTIFICATION.

BACKUP:

EVERY ROMI MACHINE LATHE HAS A FOLDER LABELED AS "LOG BOOK" THAT MUST BE USED TO RECORD EVERY INTERVENTIONS/REWORKS/UPDATES THAT HAVE BEEN DONE IN THE MACHINE.

ALSO IN THIS FOLDER ARE STORED A SET OF DISKETTES WITH THE PARAMETERS AND SW CURRENTLY INSTALLED IN THE MACHINE.

ALSO THE SW INSTALLATION AND PARAMETERS DOWNLOAD PROCEDURES ARE STORED IN THIS FOLDER.

THE AXIS/SPINDLE PARAMETERS AND SOFTWARE MAY BE UPDATED BY INDUSTRIAS ROMI S/A WITHOUT NOTIFICATION, HOWEVER, IT'S HIGHLY ADVISABLE THAT THIS PARAMETER DON'T BE CHANGED BY CUSTOMERS, UNDER THE RISK TO CAUSE SERIOUS INJURY TO THE MACHINE PERFORMANCE AND INTEGRITY.

RECOMMENDATIONS:

1) IF IT IS NECESSARY TO DOWNLOAD OR REENTER ANY PARAMETER SETTING, USE THE DISKETTE IDENTIFIED WITH THE RELATED ROMI PART NUMBER.

THE DISKETTE MAY BE FOUND IN THE MACHINE LOG BOOK INSIDE THE ELECTRICAL CABINET.

2) IN THE CASE OF MANUAL PARAMETER INPUT, FOLLOW EXACTLY THE LISTED PARAMETER SETTING DESCRIBED IN THIS MANUAL. IF THIS RECOMMENDATION IS NOT OBSERVED, THIS MAY CAUSE SERIOUS INJURY TO THE MACHINE.

3) PREFERABLY CALL A ROMI/BMI SERVICE ENGINEER IN ORDER TO INPUT MANUALLY THE PARAMETERS.

REL	MODIFICATION	MODIF.	APROV.	DATE
E	SEE NOTE 'REL.H' AT PAGE 58A	FRANCISCO	BAPTISTA	11/03/98
D	SEE NOTE 'REL.G' AT PAGE 58A	PABLO	GERALDO	6/18/98
C	SEE NOTE 'REL.C' AT PAGE 58A	PABLO	SILVIO	01/28/98
B	SEE NOTE 'REL.B' AT PAGE 58A	PABLO	SILVIO	06/11/97

DESCRIPTION	PARAMETERS		
DESIGNED	PABLO	09/04/1997	PROJECTION
DRAWER	PABLO	09/04/1997	SIZE A3
CONTROLLED	SILVIO	09/05/1997	
REFERENCE	SHEET 47A / 1+	SCALE 1:1	APPLICATION EZPATH-SD V1.0
			N°R78538 E

OR

ATTENTION:

- INDÚSTRIAS ROMI S/A ISN'T RESPONSIBLE FOR INJURY CAUSED TO THE MACHINE DUE CHANGES MADE IN THE PARAMETERS MENTIONED IN THIS CHAPTER, BY UNATHORIZED PERSONNEL.

- ONLY AUTHORIZED AND TRAINNED PERSONNEL SHOULD BE PERMITTED TO PERFORME MAINTENANCE, INSPECTIONS OR PARTS REPLACEMENT IN THIS MACHINE.

REL	MODIFICATION	MODIF.	APROV.	DATE
E	SEE NOTE REL. H AT PAGE 50 A	FRANCISCO	BAPTISTA	11/03/98
D	SEE NOTE "REL.D" AT PAGE 50A	PABLO	GERALDO	6/18/98
C	SEE NOTE "REL.C" AT PAGE 50A	PABLO	SILVIO	01/29/98
B	SEE NOTE "REL.B" AT PAGE 50A	PABLO	SILVIO	06/11/97

DESCRIPTION	PARAMETERS		
	DESIGNED	PABLO	09/04/1997
	DRAWER	PABLO	09/04/1997
	CONTROLLED	SILVIO	09/05/1997
PROJECTION	SIZE		
A3			
REFERENCE	SHEET	SCALE	APPLICATION
	47A / 2-	1:1	EZPATH-SD V1.0
N°R78538 E			

PRM	DESCRIPTION	VALUE
000	REVISION LEVEL	000000003.2
001	LO-SPEED (BELOW BREAKPOINT) ACCELERATION	00000001355
002	HI-SPEED (ABOVE BREAKPOINT) ACCELERATION	00000001355
003	ACCELERATION BREAK-POINT	00000003836
004	LO-SPEED (BELOW BREAKPOINT) DECELERATION	00000001185
005	HI-SPEED (ABOVE BREAKPOINT) DECELERATION	00000000000
006	DECELERATION BREAK-POINT	00000000000
007	MAXIMUM TRAVERSE RATE	00000049784
008	Z-AXIS TRAVERSE RATE	00000066717
009	HOMING SPEED	00000006773
010	ACCEL/DECEL PROFILE SELECTION	00000000000
011	RESIDUAL FEEDRATE FOR DLT RAMP	00000000169
012	MINIMUM REDUCTION OF FOLLOWING ERROR PER TICK	00000000065
013	% OF JOG FOLLOWING ERROR USED AS FORT PER TICK	00000000077
014	MEASURING FEED	00000005070
015	PROBING POST-HIT CONTINUATION DISTANCE	00000127000
016	TOUCH-PROBE BREAK-OFF DISTANCE	00000127000
017	X (1ST) AXIS MOVE NEGATIVE LIMIT OF TRAVEL	-00220000000
018	X (1ST) AXIS MOVE POSITIVE LIMIT OF TRAVEL	00000000000
019	Y (2ND) AXIS MOVE NEGATIVE LIMIT OF TRAVEL	-2147483648
020	Y (2ND) AXIS MOVE POSITIVE LIMIT OF TRAVEL	02147483647
021	Z (3RD) AXIS MOVE NEGATIVE LIMIT OF TRAVEL	-01016000000
022	Z (3RD) AXIS MOVE POSITIVE LIMIT OF TRAVEL	00000000000
023	C (4TH) AXIS MOVE NEGATIVE LIMIT OF TRAVEL	-2147483648
024	C (4TH) AXIS MOVE POSITIVE LIMIT OF TRAVEL	02147483647
025	S (5TH) AXIS MOVE NEGATIVE LIMIT OF TRAVEL	-2147483648
026	S (5TH) AXIS MOVE POSITIVE LIMIT OF TRAVEL	02147483647
027	X (1ST) AXIS HOME SWITCH OFFSET	00000600000
028	Y (2ND) AXIS HOME SWITCH OFFSET	00000000000
029	Z (3RD) AXIS HOME SWITCH OFFSET	00000600000
030	C (4TH) AXIS HOME SWITCH OFFSET	00000000000
031	S (5TH) AXIS HOME SWITCH OFFSET	00000000000
032	X (1ST) AXIS ENCODER RESOLUTION	00000000050
033	Y (2ND) AXIS ENCODER RESOLUTION	00000000100
034	Z (3RD) AXIS ENCODER RESOLUTION	00000000050
035	C (4TH) AXIS ENCODER RESOLUTION	00000000800
036	S (5TH) AXIS ENCODER RESOLUTION	00000000072
037	JOGKNOB ENCODER RESOLUTION	00000000600
038	"HOMING SEQUENCE" PRM CTRLS "FIND HOME" ROUTINE	00178928640
039	DEAD-BAND (NULL ZONE) FOR JOY-STICKS	00000000080
040	SCALE FACTOR FOR JOY-STICKS	00000000256
041	UNUSED	00000000144
042	UNUSED	00000000144

PRM	DESCRIPTION	VALUE
043	UNUSED	00000000144
044	UNUSED	00000000144
045	UNUSED	00000000000
046	UNUSED	00000000000
047	UNUSED	00000000000
048	UNUSED	00000000000
049	UNUSED	00000000000
050	IN-POSITION TOLERANCE	00000007620
051	MAXIMUM FOLLOWING ERROR	00000127000
052	FOLLOWING ERROR LIMIT	00000025400
053	MAXIMUM SPINDLE SLIP	00000000240
054	SPINDLE SLIP LIMIT	00000000080
055	X (1ST) AXIS BACKLASH	00000000000
056	Y (2ND) AXIS BACKLASH	00000000000
057	Z (3RD) AXIS BACKLASH	00000000000
058	C (4TH) AXIS BACKLASH	00000000000
059	S (5TH) AXIS BACKLASH	00000000000
060	X (1ST) AXIS VELOCITY GAIN	00000000310
061	Y (2ND) AXIS VELOCITY GAIN	00000000000
062	Z (3RD) AXIS VELOCITY GAIN	00000000232
063	C (4TH) AXIS VELOCITY GAIN	00000000000
064	S (5TH) AXIS VELOCITY GAIN	00000000000
065	X (1ST) AXIS SERVO GAIN	00000000007
066	Y (2ND) AXIS SERVO GAIN	00000000006
067	Z (3RD) AXIS SERVO GAIN	00000000007
068	C (4TH) AXIS SERVO GAIN	00000000000
069	S (5TH) AXIS SERVO GAIN	00000000000
070	SPINDLE VELOCITY SAMPLE PERIOD	00000000047
071	SPINDLE COMMAND GAIN	00000032154
072	SPINDLE-MOTOR MINIMUM RPM	00000000050
073	SPINDLE-MOTOR MAXIMUM RPM	00000004000
074	SPINDLE-RANGE #1 MAXIMUM RPM	00000002800
075	SPINDLE-RANGE #2 MAXIMUM RPM	00000004000
076	SPINDLE-RANGE #3 MAXIMUM RPM	00000000000
077	SPINDLE-RANGE #4 MAXIMUM RPM	00000000000
078	SPINDLE-RANGE #5 MAXIMUM RPM	00000000000
079	SPINDLE-RANGE #6 MAXIMUM RPM	00000000000
080	SPINDLE-RANGE #7 MAXIMUM RPM	00000000000
081	SPINDLE-RANGE #8 MAXIMUM RPM	00000000000
082	SPINDLE ANALOGIC-FEEDBACK GAIN	00000000000
083	LUB PUMP INTERVAL	00000000800
084	LUB PUMP DURATION	00000000000
085	X AXIS CLEARENCE POINT	00000000000

REL.	MODIFICATION	MODIF.	APROV.	DATE

REL.	MODIFICATION	MODIF.	APROV.	DATE

DESCRIPTION	EZ-ISD V1 CNC PARAMETERS				
	DESIGNED	ROGERIO	11/10/1998	PROJECTION	SIZE
	DRAWER	ROGERIO	11/10/1998		A3
	CONTROLLED	GERALDO	11/10/1998		
REFERENCE	SHEET 47B / 1+	SCALE 1:1	APPLICATION EZPATH-SD V1.0	N° R88831 A	

PRM	DESCRIPTION	VALUE
086	Y CLEARANCE POINTE	0000000000
087	X CENTER-OF-ROTATION FOR ROTARY AXIS	0000000000
088	Y CENTER-OF-ROTATION FOR ROTARY AXIS	0000000000
089	Z CENTER-OF-ROTATION FOR ROTARY AXIS	0000000000
090	TOOL-CHANGER NUMBER OF TOOLS	0000000000
091	TOOL-CHANGER CONFIGURATION	0000000000
092	TOOL-CAHNGER ORIENT POSITION	0000000000
093	TOOL-CAHNGER Z-AXIS OFFSET	-0101600000
094	JOGGING FEEDRATE	0000033867
095	SPARE (UNASSIGNED) PARAMETER	0000000000
096	SPARE (UNASSIGNED) PARAMETER	0000000000
097	TIME-OUT FOR PLC PARAMETER	0000000000
098	MASTER PARAMETER	0891551744
099	X (1ST) AXIS HOME POSITION	0000000000
100	Y (2ND) AXIS HOME POSITION	0000000000
101	Z (3RD) AXIS HOME POSITION	0000000000
102	C (4TH) AXIS HOME POSITION	0000000000
103	S (5TH) AXIS HOME POSITION	0000000000
104	TOOL-CHANGE CLEARANCE	0000000000
105	X (1ST) AXIS LEADSCREW COMPENSATION	0000000000
106	Y (2ND) AXIS LEADSCREW COMPENSATION	0000000000
107	Z (3RD) AXIS LEADSCREW COMPENSATION	0000000000
108	C (4TH) AXIS LEADSCREW COMPENSATION	0000000000
109	SPINDLE HORSEPOWER LIMIT - POWER	0000001792
110	SPINDLE HORSEPOWER LIMIT - SPPED	0000001500
111	SPINDLE CURRENT SENSE GAIN	0000000450
112	AXIS RUN-AWAY TEST VELOCITY DIFFERENCE	0000001000
113	AXIS RUN-AWAY TEST HYSTERESIS	0000000100
114	X AXIS DEFFERENTIAL FOLLOWING ERROR GAIN	0000000020
115	Y AXIS DEFFERENTIAL FOLLOWING ERROR GAIN	0000000000
116	Z AXIS DEFFERENTIAL FOLLOWING ERROR GAIN	0000000020
117	W AXIS DEFFERENTIAL FOLLOWING ERROR GAIN	0000000000
118	S AXIS DEFFERENTIAL FOLLOWING ERROR GAIN	0000000000
119	X AXIS FOLLOWING ERROR GAIN	0000000020
120	Y AXIS FOLLOWING ERROR GAIN	0000000000
121	Z AXIS FOLLOWING ERROR GAIN	0000000020
122	W AXIS FOLLOWING ERROR GAIN	0000000000
123	S AXIS FOLLOWING ERROR GAIN	0000000000
124	MAXIMUM X AXIS PWM DEVIATION	0000000280
125	MAXIMUM Y AXIS PWM DEVIATION	0000000280
126	MAXIMUM Z AXIS PWM DEVIATION	0000000280
127	MAXIMUM W AXIS PWM DEVIATION	0000000340
128	MAXIMUM S AXIS PWM DEVIATION	0000000000

PRM	DESCRIPTION	VALUE
129	X AXIS MOTOR VOLTS PER 1000 RPM	0000000031
130	Y AXIS MOTOR VOLTS PER 1000 RPM	0000000031
131	Z AXIS MOTOR VOLTS PER 1000 RPM	0000000031
132	W AXIS MOTOR VOLTS PER 1000 RPM	0000000031
133	S AXIS MOTOR VOLTS PER 1000 RPM	0000000028
134	X AXIS ENCODER LINES PER MOTOR REVOLUTION	0000002000
135	Y AXIS ENCODER LINES PER MOTOR REVOLUTION	0000002000
136	Z AXIS ENCODER LINES PER MOTOR REVOLUTION	0000002000
137	W AXIS ENCODER LINES PER MOTOR REVOLUTION	0000000100
138	S AXIS ENCODER LINES PER MOTOR REVOLUTION	0000001024
139	BUS VOLTAGE FOR PWM AMPLIFIER	0000000130
140	PWM OFFSET FOR X,Y,Z,W AXIS	0000000001
141	PWM AMP LOAD INTEGRATOR LIMIT	0000065536
142	FILTER K FOR DIGITAL FILTER	0000000005
143	FILTER K FOR DIGITAL FILTER	0000000015
144	FILTER K FOR DIGITAL FILTER	0000000000
145	FILTER K FOR DIGITAL FILTER	0000000000
146	X-AXIS LEAD-COMP INTERVAL	0000000000
147	Y-AXIS LEAD-COMP INTERVAL	0000000000
148	Z-AXIS LEAD-COMP INTERVAL	0000000000
149	W-AXIS LEAD-COMP INTERVAL	0000000000
150	MACHINE FAULTS BYTE	0000000000
151	AXIS LIMIT BYTE	0000000000
152	AUXILIARY LIMITS BYTE	0000000000
153	DRIVE FULTS BYTE	0000000000
154	MACHINE STATUS BYTE	0000000001
155	HOME SWITCH STATUS BYTE	0000000005
156	MACHINE OPTIONS STATUS BYTE	0000000000
157	USER STATUS BYTE	0000000000
158	SWITCH STATUS BYTE #1	0167772160
159	SWITCH STATUS BYTE #2	0000000000
160	MACHINE COMMAND BYTE #1	0000000065
161	MACHINE OPTIONS COMMAND BYTE	0000000002
162	USER COMMAND BITS REGISTER	0000000000
163	SPINDLE COMMAND BYTE	0000002048
164	SPINDLE STATUS BYTE	0000000005
165	COMMANDED SPINDLE SPPED (RPM)	0000000200
166	TOOL CHANGER #1 COMMAND REGISTER	0000000000
167	TOOL CHANGER STATUS	0000000128
168	TOOL CHANGER CONTROL REGISTER	0000000000
169	DESIRED CURRENT TOOL POSITION	0000000000
170	CURRENT TOOL CARROUSEL POSITION	0000000000
171	INPUTS TO TLAUF	0000000000

REL.	MODIFICATION	MODIF.	APROV.	DATE

REL.	MODIFICATION	MODIF.	APROV.	DATE

DESCRIPTION	EZ-ISD V1 CNC PARAMETERS			
	DESIGNED	ROGERIO	11/10/1998	PROJECTION / SIZE
	DRAWER	ROGERIO	11/10/1998	A3
	CONTROLLED	GERALDO	11/10/1998	
REFERENCE	SHEET: 47B / 2+	SCALE: 1:1	APPLICATION: EZPATH-SD V1.0	N° R88831 A

PRM	DESCRIPTION	VALUE
172	TL1AUF OUTPUT COMMAND REGISTER (FOR TEST USE)	00000000000
173	DESIRED NOVRAM ADDRESS	00000000000
174	DATA TO BE WRITTEN INTO NOVRAM	00000000000
175	NOVRAM ADDRESS	00000000000
176	REGISTER USED BY AUFDRVR TO ACCESS NOVRAM	00000000000
177	NOVRAM BYTE 00	00000000000
178	NOVRAM BYTE 01	00000000000
179	NOVRAM BYTE 02	00000000000
180	NOVRAM BYTE 03	00000000000
181	NOVRAM BYTE 04	00000000000
182	NOVRAM BYTE 05	00000000000
183	NOVRAM BYTE 06	00000000000
184	NOVRAM BYTE 07	00000000000
185	NOVRAM BYTE 08	00000000000
186	NOVRAM BYTE 09	00000000000
187	NOVRAM BYTE 10	00000000000
188	NOVRAM BYTE 11	00000000000
189	NOVRAM BYTE 12	00000000000
190	NOVRAM BYTE 13	00000000000
191	NOVRAM BYTE 14	00000000000
192	NOVRAM BYTE 15	00000000000
193	TOOL CHANGER #2 COMMAND REGISTER	00000000700
194	TOOL CHANGER #2 STATUS	00000000300
195	TOOL CHANGER #2 CONTROL REGISTER	00000000100
196	DESIRED CURRENT TOOL POSITION	00000000600
197	CURRENT TOOL CARROUSEL POSITION	00000000100
198	INPUTS TO TLAUF	00000000000
199	TL2AUF OUTPUT COMMAND REGISTER (FOR TEST USE)	00000000000
200	DESIRED NOVRAM ADDRESS	00000000000
201	DATA TO BE WRITTEN INTO NOVRAM	00000000000
202	NOVRAM ADDRESS	00000000001
203	REGISTER USED BY AUFDRVR TO ACCESS NOVRAM	00000145077
204	NOVRAM BYTE 00	00000000500
205	NOVRAM BYTE 01	00000000800
206	NOVRAM BYTE 02	00000000500
207	NOVRAM BYTE 03	00000001000
208	NOVRAM BYTE 04	00000001023
209	NOVRAM BYTE 05	00000000000
210	NOVRAM BYTE 06	00000000000
211	NOVRAM BYTE 07	00000000000
212	NOVRAM BYTE 08	00000000000

PRM	DESCRIPTION	VALUE
213	NOVRAM BYTE 09	00000000000
214	NOVRAM BYTE 10	00000000000
215	NOVRAM BYTE 11	00000000000
216	NOVRAM BYTE 12	00000000000
217	NOVRAM BYTE 13	00000000000
218	NOVRAM BYTE 14	00000000000
219	NOVRAM BYTE 15	00000000000
220	FEEDRATE OVERRIDE (%)	00000001600
221	SPINDLE SPEED POT	00000000000
222	X AXIS JOYSTICK	00000000013
223	Y AXIS JOYSTICK	00000000013
224	Z AXIS JOYSTICK	00000000013
225	W AXIS JOYSTICK	00000000000
226	S AXIS JOYSTICK	00000000000

ATTENTION:

IF IT IS NECESSARY TO DOWNLOAD OR REENTER ANY PARAMETER SETTING, USE THE DISKETTE IDENTIFIED WITH THE SAME ROMI PART NUMBER OF THIS SHEET. THE DISKETTE MAY BE FOUND IN THE MACHINE LOG BOOK, INSIDE THE ELECTRICAL CABINET

NOTES:

1. THE PART NUMBER R79630 WAS CHANGED BY THE PART NUMBER R88831.
2. THE STATUS PARAMETERS ARE USUALLY CHANGING THEIR ACTUAL SETTING, BECAUSE THEY HOLD THE ACTUAL MACHINE STATUS;
3. THE PARAMETERS 55 AND 57 HAVE DIFFERENT SETPOINT FROM ONE MACHINE TO ANOTHER. THE CORRECT SETPOINT CAN BE FOUND IN THE MACHINE LOG BOOK IN THE CABINET.

REL.	MODIFICATION	MODIF.	APROV.	DATE

REL.	MODIFICATION	MODIF.	APROV.	DATE

DESCRIPTION	EZ-ISD V1 CNC PARAMETERS				
	DESIGNED	ROGERIO	11/10/1998	PROJECTION	SIZE
	DRAWER	ROGERIO	11/10/1998		A3
	CONTROLLED	GERALDO	11/10/1998		
REFERENCE	SHEET 478 / 3-	SCALE 1:1	APPLICATION EZPATH-SD V1.0	N° R88831 A	

OR

PRM	DESCRIPTION	VALUE
000	REVISION LEVEL	000000003.2
001	LO-SPEED (BELOW BREAKPOINT) ACCELERATION	00000001355
002	HI-SPEED (ABOVE BREAKPOINT) ACCELERATION	00000001355
003	ACCELERATION BREAK-POINT	00000004233
004	LO-SPEED (BELOW BREAKPOINT) DECELERATION	00000001355
005	HI-SPEED (ABOVE BREAKPOINT) DECELERATION	00000000000
006	DECELERATION BREAK-POINT	00000000000
007	MAXIMUM TRAVERSE RATE	00000049784
008	Z-AXIS TRAVERSE RATE	00000066717
009	HOMING SPEED	00000006773
010	ACCEL/DECEL PROFILE SELECTION	00000000000
011	RESIDUAL FEEDRATE FOR DLT RAMP	00000000065
012	MINIMUM REDUCTION OF FOLLOWING ERROR PER TICK	00000000065
013	% OF JOG FOLLOWING ERROR USED AS FDRT PER TICK	00000000077
014	MEASURING FEED	00000005070
015	PROBING POST-HIT CONTINUATION DISTANCE	00000127000
016	TOUCH-PROBE BREAK-OFF DISTANCE	00000127000
017	X (1ST) AXIS MOVE NEGATIVE LIMIT OF TRAVEL	-00279400000
018	X (1ST) AXIS MOVE POSITIVE LIMIT OF TRAVEL	00000000000
019	Y (2ND) AXIS MOVE NEGATIVE LIMIT OF TRAVEL	-2147483648
020	Y (2ND) AXIS MOVE POSITIVE LIMIT OF TRAVEL	02147483647
021	Z (3RD) AXIS MOVE NEGATIVE LIMIT OF TRAVEL	-01524000000
022	Z (3RD) AXIS MOVE POSITIVE LIMIT OF TRAVEL	00000000000
023	C (4TH) AXIS MOVE NEGATIVE LIMIT OF TRAVEL	-2147483648
024	C (4TH) AXIS MOVE POSITIVE LIMIT OF TRAVEL	02147483647
025	S (5TH) AXIS MOVE NEGATIVE LIMIT OF TRAVEL	-2147483648
026	S (5TH) AXIS MOVE POSITIVE LIMIT OF TRAVEL	02147483647
027	X (1ST) AXIS HOME SWITCH OFFSET	00000000000
028	Y (2ND) AXIS HOME SWITCH OFFSET	00000000000
029	Z (3RD) AXIS HOME SWITCH OFFSET	00000600000
030	C (4TH) AXIS HOME SWITCH OFFSET	00000000000
031	S (5TH) AXIS HOME SWITCH OFFSET	00000000000
032	X (1ST) AXIS ENCODER RESOLUTION	00000000050
033	Y (2ND) AXIS ENCODER RESOLUTION	00000000100
034	Z (3RD) AXIS ENCODER RESOLUTION	00000000050
035	C (4TH) AXIS ENCODER RESOLUTION	00000000800
036	S (5TH) AXIS ENCODER RESOLUTION	00000000072
037	JOGKNOB ENCODER RESOLUTION	00000000600
038	"HOMING SEQUENCE" PRM CTRLS "FIND HOME" ROUTINE	00178928640
039	DEAD-BAND (NULL ZONE) FOR JOY-STICKS	00000000080
040	SCALE FACTOR FOR JOY-STICKS	00000000256
041	UNUSED	00000000144
042	UNUSED	00000000144

PRM	DESCRIPTION	VALUE
043	UNUSED	00000000144
044	UNUSED	00000000144
045	UNUSED	00000000000
046	UNUSED	00000000000
047	UNUSED	00000000000
048	UNUSED	00000000000
049	UNUSED	00000000000
050	IN-POSITION TOLERANCE	00000007620
051	MAXIMUM FOLLOWING ERROR	00000300000
052	FOLLOWING ERROR LIMIT	00000060000
053	MAXIMUM SPINDLE SLIP	00000000240
054	SPINDLE SLIP LIMIT	00000000080
055	X (1ST) AXIS BACKLASH	00000000200
056	Y (2ND) AXIS BACKLASH	00000000000
057	Z (3RD) AXIS BACKLASH	00000000700
058	C (4TH) AXIS BACKLASH	00000000000
059	S (5TH) AXIS BACKLASH	00000000000
060	X (1ST) AXIS VELOCITY GAIN	00000000310
061	Y (2ND) AXIS VELOCITY GAIN	00000000000
062	Z (3RD) AXIS VELOCITY GAIN	00000000232
063	C (4TH) AXIS VELOCITY GAIN	00000000000
064	S (5TH) AXIS VELOCITY GAIN	00000000000
065	X (1ST) AXIS SERVO GAIN	00000000007
066	Y (2ND) AXIS SERVO GAIN	00000000008
067	Z (3RD) AXIS SERVO GAIN	00000000007
068	C (4TH) AXIS SERVO GAIN	00000000000
069	S (5TH) AXIS SERVO GAIN	00000000000
070	SPINDLE VELOCITY SAMPLE PERIOD	00000000047
071	SPINDLE COMMAND GAIN	00000029082
072	SPINDLE-MOTOR MINIMUM RPM	00000000040
073	SPINDLE-MOTOR MAXIMUM RPM	00000004000
074	SPINDLE-RANGE #1 MAXIMUM RPM	00000002250
075	SPINDLE-RANGE #2 MAXIMUM RPM	00000003000
076	SPINDLE-RANGE #3 MAXIMUM RPM	00000000000
077	SPINDLE-RANGE #4 MAXIMUM RPM	00000000000
078	SPINDLE-RANGE #5 MAXIMUM RPM	00000000000
079	SPINDLE-RANGE #6 MAXIMUM RPM	00000000000
080	SPINDLE-RANGE #7 MAXIMUM RPM	00000000000
081	SPINDLE-RANGE #8 MAXIMUM RPM	00000000000
082	SPINDLE ANALOGIC-FEEDBACK GAIN	00000000000
083	LUB PUMP INTERVAL	00000000800
084	LUB PUMP DURATION	00000000000
085	X AXIS CLEARENCE POINT	00000000000

REL.	MODIFICATION	MODIF.	APROV.	DATE

REL.	MODIFICATION	MODIF.	APROV.	DATE

DESCRIPTION: EZ-IISD V1 CNC PARAMETERS

DESIGNED	ROGERIO	11/10/1998	PROJECTION
DRAWER	ROGERIO	11/10/1998	SIZE A3
CONTROLLED	GERALDO	11/10/1998	

REFERENCE	SHEET	SCALE	APPLICATION	
	47C / 1+	1:1	EZPATH-SD V1.0	N°R88834 A

PRM	DESCRIPTION	VALUE
086	Y CLEARANCE POINTE	00000000000
087	X CENTER-OF-ROTATION FOR ROTARY AXIS	00000000000
088	Y CENTER-OF-ROTATION FOR ROTARY AXIS	00000000000
089	Z CENTER-OF-ROTATION FOR ROTARY AXIS	00000000000
090	TOOL-CHANGER NUMBER OF TOOLS	00000000000
091	TOOL-CHANGER CONFIGURATION	00000000000
092	TOOL-CAHNGER ORIENT POSITION	00000000000
093	TOOL-CAHNGER Z-AXIS OFFSET	-01016000000
094	JOGGING FEEDRATE	00000066717
095	SPARE (UNASSIGNED) PARAMETER	00000000000
096	SPARE (UNASSIGNED) PARAMETER	00000000000
097	TIME-OUT FOR PLC PARAMETER	00000000000
098	MASTER PARAMETER	00891551744
099	X (1ST) AXIS HOME POSITION	00000000000
100	Y (2ND) AXIS HOME POSITION	00000000000
101	Z (3RD) AXIS HOME POSITION	00000000000
102	C (4TH) AXIS HOME POSITION	00000000000
103	S (5TH) AXIS HOME POSITION	00000000000
104	TOOL-CHANGE CLEARANCE	00000000000
105	X (1ST) AXIS LEADSCREW COMPENSATION	00000000000
106	Y (2ND) AXIS LEADSCREW COMPENSATION	00000000000
107	Z (3RD) AXIS LEADSCREW COMPENSATION	00000000000
108	C (4TH) AXIS LEADSCREW COMPENSATION	00000000000
109	SPINDLE HORSEPOWER LIMIT - POWER	00000001792
110	SPINDLE HORSEPOWER LIMIT - SPPED	00000021500
111	SPINDLE CURRENT SENSE GAIN	00000000450
112	AXIS RUN-AWAY TEST VELOCITY DIFFERENCE	00000000050
113	AXIS RUN-AWAY TEST HYSTERESIS	00000000200
114	X AXIS DEFFERENTIAL FOLLOWING ERROR GAIN	00000000050
115	Y AXIS DEFFERENTIAL FOLLOWING ERROR GAIN	00000000000
116	Z AXIS DEFFERENTIAL FOLLOWING ERROR GAIN	00000000050
117	W AXIS DEFFERENTIAL FOLLOWING ERROR GAIN	00000000000
118	S AXIS DEFFERENTIAL FOLLOWING ERROR GAIN	00000000000
119	X AXIS FOLLOWING ERROR GAIN	00000000020
120	Y AXIS FOLLOWING ERROR GAIN	00000000000
121	Z AXIS FOLLOWING ERROR GAIN	00000000020
122	W AXIS FOLLOWING ERROR GAIN	00000000000
123	S AXIS FOLLOWING ERROR GAIN	00000000000
124	MAXIMUM X AXIS PWM DEVIATION	00000000280
125	MAXIMUM Y AXIS PWM DEVIATION	00000000280
126	MAXIMUM Z AXIS PWM DEVIATION	00000000280
127	MAXIMUM W AXIS PWM DEVIATION	00000000340
128	MAXIMUM S AXIS PWM DEVIATION	00000000000

PRM	DESCRIPTION	VALUE
129	X AXIS MOTOR VOLTS PER 1000 RPM	00000000031
130	Y AXIS MOTOR VOLTS PER 1000 RPM	00000000031
131	Z AXIS MOTOR VOLTS PER 1000 RPM	00000000031
132	W AXIS MOTOR VOLTS PER 1000 RPM	00000000031
133	S AXIS MOTOR VOLTS PER 1000 RPM	00000000028
134	X AXIS ENCODER LINES PER MOTOR REVOLUTION	00000002000
135	Y AXIS ENCODER LINES PER MOTOR REVOLUTION	00000002000
136	Z AXIS ENCODER LINES PER MOTOR REVOLUTION	00000003000
137	W AXIS ENCODER LINES PER MOTOR REVOLUTION	00000000100
138	S AXIS ENCODER LINES PER MOTOR REVOLUTION	00000001024
139	BUS VOLTAGE FOR PWM AMPLIFIER	00000000130
140	PWM OFFSET FOR X.Y.Z.W AXIS	00000000001
141	PWM AMP LOAD INTEGRATOR LIMIT	00000065536
142	FILTER K FOR DIGITAL FILTER	00000000005
143	FILTER K FOR DIGITAL FILTER	00000000015
144	FILTER K FOR DIGITAL FILTER	00000000000
145	FILTER K FOR DIGITAL FILTER	00000000000
146	X-AXIS LEAD-COMP INTERVAL	00000000000
147	Y-AXIS LEAD-COMP INTERVAL	00000000000
148	Z-AXIS LEAD-COMP INTERVAL	00000000000
149	W-AXIS LEAD-COMP INTERVAL	00000000000
150	MACHINE FAULTS BYTE	00000000000
151	AXIS LIMIT BYTE	00000000000
152	AUXILIARY LIMITS BYTE	00000000000
153	DRIVE FULTS BYTE	00000000000
154	MACHINE STATUS BYTE	00000000001
155	HOME SWITCH STATUS BYTE	00000000005
156	MACHINE OPTIONS STATUS BYTE	00000000000
157	USER STATUS BYTE	00000000000
158	SWITCH STATUS BYTE #1	00000000000
159	SWITCH STATUS BYTE #2	00000000000
160	MACHINE COMMAND BYTE #1	00000000069
161	MACHINE OPTIONS COMMAND BYTE	00000000000
162	USER COMMAND BITS REGISTER	00000000000
163	SPINDLE COMMAND BYTE	00000016386
164	SPINDLE STATUS BYTE	00000000032
165	COMMANDED SPINDLE SPPED (RPM)	00000000050
166	TOOL CHANGER #1 COMMAND REGISTER	00000000000
167	TOOL CHANGER STATUS	-0000000128
168	TOOL CHANGER CONTROL REGISTER	00000000000
169	DESIRED CURRENT TOOL POSITION	00000000000
170	CURRENT TOOL CARROUSEL POSITION	00000000000
171	INPUTS TO TLAUF	00000000000

REL.	MODIFICATION	MODIF.	APROV.	DATE

REL.	MODIFICATION	MODIF.	APROV.	DATE

DESCRIPTION: EZ-IISD V1 CNC PARAMETERS

DESIGNED	ROGERIO	11/10/1998	PROJECTION
DRAWER	ROGERIO	11/10/1998	SIZE A3
CONTROLLED	GERALDO	11/10/1998	

REFERENCE	SHEET	SCALE	APPLICATION	N°R88834 A
	47C / 2+	1:1	EZPATH-SD V1.0	

OR

PRM	DESCRIPTION	VALUE
172	TL1AUF OUTPUT COMMAND REGISTER (FOR TEST USE)	00000000000
173	DESIRED NOVRAM ADDRESS	00000000000
174	DATA TO BE WRITTEN INTO NOVRAM	00000000000
175	NOVRAM ADDRESS	00000000000
176	REGISTER USED BY AUFDRVR TO ACCESS NOVRAM	00000000000
177	NOVRAM BYTE 00	00000000000
178	NOVRAM BYTE 01	00000000000
179	NOVRAM BYTE 02	00000000000
180	NOVRAM BYTE 03	00000000000
181	NOVRAM BYTE 04	00000000000
182	NOVRAM BYTE 05	00000000000
183	NOVRAM BYTE 06	00000000000
184	NOVRAM BYTE 07	00000000000
185	NOVRAM BYTE 08	00000000000
186	NOVRAM BYTE 09	00000000000
187	NOVRAM BYTE 10	00000000000
188	NOVRAM BYTE 11	00000000000
189	NOVRAM BYTE 12	00000000000
190	NOVRAM BYTE 13	00000000000
191	NOVRAM BYTE 14	00000000000
192	NOVRAM BYTE 15	00000000000
193	TOOL CHANGER #2 COMMAND REGISTER	00000000000
194	TOOL CHANGER #2 STATUS	00000000100
195	TOOL CHANGER #2 CONTROL REGISTER	00000000100
196	DESIRED CURRENT TOOL POSITION	00000000100
197	CURRENT TOOL CARROUSEL POSITION	00000000000
198	INPUTS TO TLAUF	00000000000
199	TL2AUF OUTPUT COMMAND REGISTER (FOR TEST USE)	00000000000
200	DESIRED NOVRAM ADDRESS	00000000000
201	DATA TO BE WRITTEN INTO NOVRAM	00000000000
202	NOVRAM ADDRESS	00000000001
203	REGISTER USED BY AUFDRVR TO ACCESS NOVRAM	00000145077
204	NOVRAM BYTE 00	00000000500
205	NOVRAM BYTE 01	00000000800
206	NOVRAM BYTE 02	00000000500
207	NOVRAM BYTE 03	00000001000
208	NOVRAM BYTE 04	00000001023
209	NOVRAM BYTE 05	00000000000
210	NOVRAM BYTE 06	00000000000
211	NOVRAM BYTE 07	00000000000
212	NOVRAM BYTE 08	00000000000

PRM	DESCRIPTION	VALUE
213	NOVRAM BYTE 09	00000000000
214	NOVRAM BYTE 10	00000000000
215	NOVRAM BYTE 11	00000000000
216	NOVRAM BYTE 12	00000000000
217	NOVRAM BYTE 13	00000000000
218	NOVRAM BYTE 14	00000000000
219	NOVRAM BYTE 15	00000000000
220	FEEDRATE OVERRIDE (%)	00000001600
221	SPINDLE SPEED POT	00000000000
222	X AXIS JOYSTICK	00000000029
223	Y AXIS JOYSTICK	00000000029
224	Z AXIS JOYSTICK	00000000029
225	W AXIS JOYSTICK	00000000000
226	S AXIS JOYSTICK	00000000000

ATTENTION:

IF IT IS NECESSARY TO DOWNLOAD OR REENTER ANY PARAMETER SETTING, USE THE DISKETTE IDENTIFIED WITH THE SAME ROM1 PART NUMBER OF THIS SHEET. THE DISKETTE MAY BE FOUND IN THE MACHINE LOG BOOK, INSIDE THE ELECTRICAL CABINET

NOTES:

1. THE PART NUMBER R78793 WAS CHANGED BY THE PART NUMBER R88834.
2. THE STATUS PARAMETERS ARE USUALLY CHANGING THEIR ACTUAL SETTING, BECAUSE THEY HOLD THE ACTUAL MACHINE STATUS;
3. THE PARAMETERS 55 AND 57 HAVE DIFFERENT SETPOINT FROM ONE MACHINE TO ANOTHER. THE CORRECT SETPOINT CAN BE FOUND IN THE MACHINE LOG BOOK IN THE CABINET.

REL	MODIFICATION	MODIF.	APROV.	DATE

REL	MODIFICATION	MODIF.	APROV.	DATE

DESCRIPTION	EZ-IISD V1 CNC PARAMETERS			
	DESIGNED	ROGERIO	11/10/1998	PROJECTION
	DRAWER	ROGERIO	11/10/1998	SIZE A3
	CONTROLLED	GERALDO	11/10/1998	
REFERENCE	SHEET 47C / 3-	SCALE 1:1	APPLICATION EZPATH-SD V1.0	N°R88834 A

PRM	DESCRIPTION	VALUE
A1-00	SELECT LANGUAGE	0
A1-01	ACCESS LEVEL	4
A1-02	CONTROL METHOD	2
A1-03	INIT PARAMETERS	0
A1-04	ENTER PASSWORD	0
A1-05	SELECT PASSWORD	0
A2-01	USER PARAM 1	000
A2-02	USER PARAM 2	000
A2-03	USER PARAM 3	000
A2-04	USER PARAM 4	000
A2-05	USER PARAM 5	000
A2-06	USER PARAM 6	000
A2-07	USER PARAM 7	000
A2-08	USER PARAM 8	000
A2-09	USER PARAM 9	000
A2-10	USER PARAM 10	000
A2-11	USER PARAM 11	000
A2-12	USER PARAM 12	000
A2-13	USER PARAM 13	000
A2-14	USER PARAM 14	000
A2-15	USER PARAM 15	000
A2-16	USER PARAM 16	000
A2-17	USER PARAM 17	000
A2-18	USER PARAM 18	000
A2-19	USER PARAM 19	000
A2-20	USER PARAM 20	000
A2-21	USER PARAM 21	000
A2-22	USER PARAM 22	000
A2-23	USER PARAM 23	000
A2-24	USER PARAM 24	000
A2-25	USER PARAM 25	000
A2-26	USER PARAM 26	000
A2-27	USER PARAM 27	000
A2-28	USER PARAM 28	000
A2-29	USER PARAM 29	000
A2-30	USER PARAM 30	000
A2-31	USER PARAM 31	000
A2-32	USER PARAM 32	000
B1-01	REFERENCE SOURCE	1
B1-02	RUN SOURCE	1
B1-03	STOPPING METHOD	0
B1-04	REVERSE OPER	0
B1-05	ZERO-SPEED OPER	0

PRM	DESCRIPTION	VALUE
B1-06	CNTL INPUT SCANS	1
B1-07	LOC/REM RUN SEL	0
B2-01	DCINJ START FREQ	0.5
B2-02	DCINJ CURRENT	50
B2-03	DCINJ TIME@SRTAT	0.20
B2-04	DCINJ TIME@STOP	0.00
B3-01	SPDSRCH AT START	0
B3-02	SPDSRCH CURRENT	100
B3-03	SPDSRCH DEC TIME	2.0
B4-01	DELAY-ON TIMER	0.0
B4-02	DELAY-OFF TIMER	0.0
B5-01	PID MODE	0
B5-02	PID GAIN	1.00
B5-03	PID I TIME	1.0
B5-04	PID I LIMIT	100.0
B5-05	PID D TIME	0.00
B5-06	PID LIMIT	100.0
B5-07	PID OFFSET	0.0
B5-08	PID DELAY TIME	0.00
B6-01	DWELL REF @START	0.0
B6-02	DWELL TIME@START	0.0
B6-03	DWELL REF @STOP	0.0
B6-04	DWELL TIME @STOP	0.0
B7-01	DROOP QUANTITY	0.0
B7-02	DROOP DELAY TIME	0.05
B8-01	ENERGY SAVE GAIN	80
B8-02	ENERGY SAVE FREQ	0.0
B9-01	ZERO SERVO GAIN	5
B9-02	ZERO SERVO COUNT	10
C1-01	ACCEL TIME 1	2.0
C1-02	DECEL TIME 1	2.0
C1-03	ACCEL TIME 2	10.0
C1-04	DECEL TIME 2	10.0
C1-05	ACCEL TIME 3	10.0
C1-06	DECEL TIME 3	10.0
C1-07	ACCEL TIME 4	10.0
C1-08	DECEL TIME 4	10.0
C1-09	FAST STOP TIME	10.0
C1-10	ACC/DEC UNITS	1
C1-11	ACC/DEC SW FREQ	0.0
C2-01	SCRV ACC @ START	0.40
C2-02	SCRV ACC @ END	0.20
C2-03	SCRV DEC @ START	0.50

PRM	DESCRIPTION	VALUE
C2-04	SCRV DEC @ END	0.00
C3-01	SLIP COMP GAIN	1.0
C3-02	SLIP COMP TIME	200
C3-03	SLIP COMP LIMIT	200
C3-04	SLIP COMP REGEN	0
C3-05	FLUX SELECT	0
C4-01	TORQ COMP GAIN	1.00
C4-02	TORQ COMP TIME	20
C5-01	ASR P GAIN 1	20.00
C5-02	ASR I TIME 1	0.500
C5-03	ASR P GAIN 2	20.00
C5-04	ASR I TIME 2	0.500
C5-05	ASR LIMIT	0.0
C5-06	ASR DELAY TIME	0.004
C5-07	ASR GAIN SW FREQ	0.0
C5-08	ASR I LIMIT	400
C6-01	CARRIERFREQ MAX	10.0
C6-02	CARRIERFREQ MIN	10.0
C6-03	CARRIERFREQ GAIN	0
C7-01	HUNT PREV SELECT	1
C7-02	HUNT PREV GAIN	1.00
C8-08	AFR GAIN	1.60
C8-09	AFR TIME	50
C8-30	CARRIER IN TUNE	2
D1-01	REFERENCE 1	200.00
D1-02	REFERENCE 2	0.00
D1-03	REFERENCE 3	0.00
D1-04	REFERENCE 4	0.00
D1-05	REFERENCE 5	0.00
D1-06	REFERENCE 6	0.00
D1-07	REFERENCE 7	0.00
D1-08	REFERENCE 8	0.00
D1-09	JOG REFERENCE	6.00
D2-01	REF UPPER LIMIT	100.0
D2-02	REF LOWER LIMIT	0.0
D3-01	JUMP FREQ 1	0.0
D3-02	JUMP FREQ 2	0.0
D3-03	JUMP FREQ 3	0.0
D3-04	JUMP BANDWIDTH	1.0
D4-01	MOP REF MEMORY	0
D4-02	TRIM CONTROL LVL	10

REL.	MODIFICATION	MODIF.	APROV.	DATE
C	CHANGED PARAM. E4-01 FROM 103.0 TO 144.0	ROGERIO	GERALDO	10/26/98
B	CHANGED PARAM. H1-01, H2-01, E1-04, E4-01 AND H3-02.	PABLO	GERALDO	6/18/98

DESCRIPTION	SPINDLE DRIVE PARAM. EZ-ISD V1.0		
DESIGNED	PABLO	11/27/1997	PROJECTION
DRAWER	ROGERIO	11/27/1997	SIZE A3
CONTROLLED	GERALDO	11/27/1997	
REFERENCE	SHEET 47D / 1+	SCALE 1:1	APPLICATION EZPATH-ISD V1.0
N°R80696 C			

PRM	DESCRIPTION	VALUE
A1-00	SELECT LANGUAGE	0
A1-01	ACCESS LEVEL	4
A1-02	CONTROL METHOD	2
A1-03	INIT PARAMETERS	0
A1-04	ENTER PASSWORD	0
A1-05	SELECT PASSWORD	0
A2-01	USER PARAM 1	000
A2-02	USER PARAM 2	000
A2-03	USER PARAM 3	000
A2-04	USER PARAM 4	000
A2-05	USER PARAM 5	000
A2-06	USER PARAM 6	000
A2-07	USER PARAM 7	000
A2-08	USER PARAM 8	000
A2-09	USER PARAM 9	000
A2-10	USER PARAM 10	000
A2-11	USER PARAM 11	000
A2-12	USER PARAM 12	000
A2-13	USER PARAM 13	000
A2-14	USER PARAM 14	000
A2-15	USER PARAM 15	000
A2-16	USER PARAM 16	000
A2-17	USER PARAM 17	000
A2-18	USER PARAM 18	000
A2-19	USER PARAM 19	000
A2-20	USER PARAM 20	000
A2-21	USER PARAM 21	000
A2-22	USER PARAM 22	000
A2-23	USER PARAM 23	000
A2-24	USER PARAM 24	000
A2-25	USER PARAM 25	000
A2-26	USER PARAM 26	000
A2-27	USER PARAM 27	000
A2-28	USER PARAM 28	000
A2-29	USER PARAM 29	000
A2-30	USER PARAM 30	000
A2-31	USER PARAM 31	000
A2-32	USER PARAM 32	000
B1-01	REFERENCE SOURCE	1
B1-02	RUN SOURCE	1
B1-03	STOPPING METHOD	0
B1-04	REVERSE OPER	0
B1-05	ZERO-SPEED OPER	0

PRM	DESCRIPTION	VALUE
B1-06	CNTL INPUT SCANS	1
B1-07	LOC/REM RUN SEL	0
B2-01	DCINJ START FREQ	0.5
B2-02	DCINJ CURRENT	50
B2-03	DCINJ TIME@SRTAT	0.20
B2-04	DCINJ TIME@STOP	0.00
B3-01	SPDSRCH AT START	0
B3-02	SPDSRCH CURRENT	100
B3-03	SPDSRCH DEC TIME	2.0
B4-01	DELAY-ON TIMER	0.0
B4-02	DELAY-OFF TIMER	0.0
B5-01	PID MODE	0
B5-02	PID GAIN	1.00
B5-03	PID I TIME	1.0
B5-04	PID I LIMIT	100.0
B5-05	PID D TIME	0.00
B5-06	PID LIMIT	100.0
B5-07	PID OFFSET	0.0
B5-08	PID DELAY TIME	0.00
B6-01	DWELL REF @START	0.0
B6-02	DWELL TIME@START	0.0
B6-03	DWELL REF @STOP	0.0
B6-04	DWELL TIME @STOP	0.0
B7-01	DROOP QUANTITY	0.0
B7-02	DROOP DELAY TIME	0.05
B8-01	ENERGY SAVE GAIN	80
B8-02	ENERGY SAVE FREQ	0.0
B9-01	ZERO SERVO GAIN	5
B9-02	ZERO SERVO COUNT	10
C1-01	ACCEL TIME 1	2.0
C1-02	DECEL TIME 1	2.0
C1-03	ACCEL TIME 2	10.0
C1-04	DECEL TIME 2	10.0
C1-05	ACCEL TIME 3	10.0
C1-06	DECEL TIME 3	10.0
C1-07	ACCEL TIME 4	10.0
C1-08	DECEL TIME 4	10.0
C1-09	FAST STOP TIME	10.0
C1-10	ACC/DEC UNITS	1
C1-11	ACC/DEC SW FREQ	0.0
C2-01	SCRV ACC @ START	0.40
C2-02	SCRV ACC @ END	0.20
C2-03	SCRV DEC @ START	0.50

PRM	DESCRIPTION	VALUE
C2-04	SCRV DEC @ END	0.00
C3-01	SLIP COMP GAIN	1.0
C3-02	SLIP COMP TIME	200
C3-03	SLIP COMP LIMIT	200
C3-04	SLIP COMP REGEN	0
C3-05	FLUX SELECT	0
C4-01	TORQ COMP GAIN	1.00
C4-02	TORQ COMP TIME	20
C5-01	ASR P GAIN 1	20.00
C5-02	ASR I TIME 1	0.500
C5-03	ASR P GAIN 2	20.00
C5-04	ASR I TIME 2	0.500
C5-05	ASR LIMIT	0.0
C5-06	ASR DELAY TIME	0.004
C5-07	ASR GAIN SW FREQ	0.0
C5-08	ASR I LIMIT	400
C6-01	CARRIERFREQ MAX	10.0
C6-02	CARRIERFREQ MIN	10.0
C6-03	CARRIERFREQ GAIN	0
C7-01	HUNT PREV SELECT	1
C7-02	HUNT PREV GAIN	1.00
C8-08	AFR GAIN	1.60
C8-09	AFR TIME	50
C8-30	CARRIER IN TUNE	2
D1-01	REFERENCE 1	200.00
D1-02	REFERENCE 2	0.00
D1-03	REFERENCE 3	0.00
D1-04	REFERENCE 4	0.00
D1-05	REFERENCE 5	0.00
D1-06	REFERENCE 6	0.00
D1-07	REFERENCE 7	0.00
D1-08	REFERENCE 8	0.00
D1-09	JOG REFERENCE	6.00
D2-01	REF UPPER LIMIT	100.0
D2-02	REF LOWER LIMIT	0.0
D3-01	JUMP FREQ 1	0.0
D3-02	JUMP FREQ 2	0.0
D3-03	JUMP FREQ 3	0.0
D3-04	JUMP BANDWIDTH	1.0
D4-01	MOP REF MEMORY	0
D4-02	TRIM CONTROL LVL	10

REL.	MODIFICATION	MODIF.	APROV.	DATE
C	CHANGED PARAM. E4-01 FROM 1030 TO 1440	ROGERIO	GERALDO	10/26/98
B	CHANGED PARAM. H1-01, H2-01, E1-04, E4-01 AND H3-02.	PABLO	GERALDO	6/18/98

DESCRIPTION: SPINDLE DRIVE PARAM. EZ-ISD V1.0

DESIGNED	PABLO	11/27/1997	PROJECTION
DRAWER	ROGERIO	11/27/1997	SIZE A3
CONTROLLED	GERALDO	11/27/1997	

REFERENCE	SHEET	SCALE	APPLICATION	N°
	470 / 1+	1:1	EZPATH-ISD V1.0	R80696 C

PRM	DESCRIPTION	VALUE
D5-01	TORQ CONTROL SEL	0
D5-02	TORQ REF FILTER	0
D5-03	SPEED LIMIT SEL	1
D5-04	SPEED LMT VALUE	0
D5-05	SPEED LMT BIAS	10
D5-06	REF HOLD TIME	0
E1-01	INPUT VOLTAGE	230
E1-02	MOTOR SELECTION	0
E1-03	V/F SELECTION	F
E1-04	MAX FREQUENCY	206.0
E1-05	MAX VOLTAGE	220.0
E1-06	BASE FREQUENCY	104.0
E1-07	MID FREQUENCY A	3.0
E1-08	MID VOLTAGE A	7.0
E1-09	MIN FREQUENCY	0.5
E1-10	MIN VOLTAGE	1.3
E1-11	MID FREQUENCY B	0.0
E1-12	MID VOLTAGE B	0.0
E1-13	BASE VOLTAGE	220.0
E2-00	MOTOR SELECTION	0
E2-01	MOTOR RATED FLA	54.0
E2-02	MOTOR RATED SLIP	1.69
E2-03	NO-LOAD CURRENT	26.4
E2-04	NUMBER OF POLES	6
E2-05	TERM RESISTENCE	0.129
E2-06	LEAK INDUTANCE	19.5
E2-07	SATURATION COMP1	0.49
E2-08	SATURATION COMP2	0.74
E2-09	MECHANICAL LOSS	0.0
E3-01	CONTROL METHOD	2
E4-01	MAX FREQUENCE 2	144.0
E4-02	MAX VOLTAGE 2	220.0
E4-03	BASE FREQUENCY 2	60.0
E4-04	MID FREQUENCY 2	3.0
E4-05	MID VOLTAGE 2	12.1
E4-06	MIN FREQUENCY 2	0.5
E4-07	MIN VOLTAGE 2	2.2
E5-01	MOTOR RATED FLA2	54.0
E5-02	MOT RATED SLIP2	2.74
E5-03	NO-LOAD CURRENT2	16.4
E5-04	NUMBER OF POLE2	6
E5-05	TERM RESISTENCE2	0.319
E5-06	LEAK INDUTANCE2	19.5

PRM	DESCRIPTION	VALUE
F1-01	PG PULSES/REV	1024
F1-02	PG FDBK LOSS SEL	1
F1-03	PG OVERSPEED SEL	1
F1-04	PG DEVIATION SEL	3
F1-05	PG ROTATION SEL	0
F1-06	PG OUTPUT RATIO	1
F1-07	PG RAMP PI/I SEL	0
F1-08	PG OVERSPD LEVEL	115
F1-09	PG OVERSPD TIME	0.0
F1-10	PG DEVIATION LEVEL	10
F1-11	PG DEVIATION TIME	0.5
F1-12	PG # GEAR TEETH1	0
F1-13	PG # GEAR TEETH2	0
F1-14	PGO DETECT TIME	2.0
F2-01	AI-14 INPUT SEL	0
F3-01	DI INPUT	0
F4-01	AO CH1 SELECT	2
F4-02	AO CH1 GAIN	1.00
F4-03	AO CH2 SELECT	3
F4-04	AO CH2 GAIN	0.50
F5-01	DO-02 CH1 SELECT	0
F5-02	DO-02 CH2 SELECT	1
F6-01	DO-08 SELECTION	0
F7-01	PO-36F SELECTION	1
F8-01	E-15 DET SEL	1
F9-01	EFO SELECTION	1
F9-02	EFO DTCT SEL	1
F9-03	EFO FAULT SEL	1
F9-04	TRACE SAMPLE TRIM	1
F9-05	TORQ REF/LMT SEL	1
F9-06	BUS FAULT SEL	1
H1-01	TERMINAL 3 SEL	24
H1-02	TERMINAL 4 SEL	14
H1-03	TERMINAL 5 SEL	3
H1-04	TERMINAL 6 SEL	16
H1-05	TERMINAL 7 SEL	6
H1-06	TERMINAL 8 SEL	8
H2-01	TERMINAL 9 SEL	1
H2-02	TERMINAL 25 SEL	1
H2-03	TERMINAL 26 SEL	2
H3-01	TERM 13 SIGNAL	1
H3-02	TERMINAL 13 GAIN	111.0
H3-03	TERMINAL 13 BIAS	0.0

PRM	DESCRIPTION	VALUE
H3-04	TERM 16 SIGNAL	0
H3-05	TERMINAL 16 SEL	0
H3-06	TERMINAL 16 GAIN	100.0
H3-07	TERM 16 BIAS	0.0
H3-08	TERM 14 SIGNAL	2
H3-09	TERMINAL 14 SEL	1F
H3-10	TERMINAL 14 GAIN	100.0
H3-11	TERMINAL 14 BIAS	0.0
H3-12	FILTER AVG TIME	0.10
H4-01	TERMINAL 21 SEL	2
H4-02	TERMINAL 21 GAIN	1.00
H4-03	TERMINAL 21 BIAS	0.0
H4-04	TERMINAL 23 SEL	3
H4-05	TERMINAL 23 GAIN	0.50
H4-06	TERMINAL 23 BIAS	0.0
H4-07	AO LEVEL SELECT	0
H5-01	SERIAL COMM ADR	1F
H5-02	SERIAL BAUD RATE	3
H5-03	SERIAL COM SEL	0
H5-04	SERIAL FAULT SEL	3
H5-05	SERIAL FLT DTCT	1
L1-01	MOL FAULT SELECT	1
L1-02	MOL TIME CONST	1.0
L2-01	PWRL SELECTION	0
L2-02	PWRL RADETHRU T	2.0
L2-03	PWRL BASEBLOCK T	0.7
L2-04	PWRL V/F RAMP T	0.3
L2-05	PUV DET LEVEL	190
L2-06	KEB FREQUENCY	0.0
L3-01	STALLP ACCEL SEL	1
L3-02	STALLP ACCEL LVL	150
L3-03	STALLP CHP LVL	70
L3-04	STALLP DECEL SEL	0
L3-05	STALLP RUN SEL	1
L3-06	STALLP RUN LEVEL	160
L4-01	SPD AGREE LEVEL	0.0
L4-02	SPD AGREE WIDTH	2.0
L4-03	SPD AGREE LVL +-	0.0
L4-04	SPD AGREE WDTH +-	2.0
L4-05	REF LOSS SEL	0
L5-01	NUM OF RESTARTS	0
L5-02	RESTART SEL	0
L5-03	MAX RESTART TIME	10.0

REL	MODIFICATION	MODIF.	APROV.	DATE
C	CHANGED PARAM. E4-01 FROM 1030 TO 144.0	ROGERIO	GERALDO	10/26/98
B	CHANGED PARAM. H1-01, H2-01, E1-04, E4-01 AND H3-02.	PABLO	GERALDO	6/18/98

DESCRIPTION	SPINDLE DRIVE PARAM. EZ-ISD V1.0			
	DESIGNED	PABLO	11/27/1997	PROJECTION
	DRAWER	ROGERIO	11/27/1997	SIZE A3
	CONTROLLED	GERALDO	11/27/1997	
REFERENCE	SHEET 470 / 2+	SCALE 1:1	APPLICATION EZPATH-ISD V1.0	N°R80696 C

PRM	DESCRIPTION	VALUE
L6-01	TORQ DET 1 SEL	0
L6-02	TORQ DET 1 LVL	150
L6-03	TORQ DET 1 TIME	0.1
L6-04	TORQ DET 2 SEL	0
L6-05	TORQ DET 2 LVL	150
L6-06	TORQ DET 2 TIME	0.1
L7-01	TORQ LIMIT FWD	200
L7-02	TORQ LIMIT REV	200
L7-03	TORQ LMT FWD RGN	200
L7-04	TORQ LMT REV RGN	200
L7-05	TORQ LIMIT GAIN	2.0
L7-06	TORQ LIMIT TIME	200
L8-01	DB RESISTOR PROT	0
L8-02	OH PRE-ALARM LVL	95
L8-03	OH PRE-ALARM SEL	3
L8-05	PH LOSS IN SEL	0
L8-07	PH LOSS OUT SEL	1
L8-10	GROUND FAULT SEL	1
O1-01	USER MONITOR SEL	6
O1-02	POWER-ON MONITOR	1
O1-03	DISPLAY SCALING	0
O1-04	DISPLAY UNITS	0
O1-05	ADDRES DISPLAY	0
O2-01	LOCAL/REMOTE KEY	1
O2-02	OPER STOP KEY	1
O2-03	USER DEFAULTS	0
O2-04	INVERTER MODEL #	7
O2-05	OPERATOR M.O.P.	0
O2-06	OPER DETECTION	0
O2-07	ELAPSED TIME SET	0
O2-08	ELAPSED TIME RUN	0
O2-09	INIT MODE SEL	1

NOTES:

1. THE PARAMETERS O2-07 AND 02-08 HAVE THEIR SETPOINT UPDATED IN FUNCTION OF THE TIME;
2. THE G5 FIRMWARE RELEASE MUST BE IDENTIFIED AS S1042. IT IS POSSIBLE TO VERIFY THE CURRENT FIRMWARE RELEASE USING THE CONSTATNT U1-14 OF THE MONITOR MENU;
3. USE THE 'G5 SUPPORT TOOL' SOFTWARE, RELEASE 1.0 (BETA VERSION) TO DOWNLOAD THE PARAMETER FILE FROM THE PC TO THE DRIVE.

ATTENTION:

IF IT IS NECESSARY TO DOWNLOAD OR REENTER ANY PARAMETER SETTING, USE THE DISKETTE IDENTIFIED WITH THE SAME ROMI PART NUMBER OF THIS SHEET. THE DISKETTE MAY BE FOUND IN THE MACHINE LOG BOOK, INSIDE THE ELECTRICAL CABINET.

REL	MODIFICATION	MODIF.	APROV.	DATE
C	CHANGED PARAM. E4-01 FROM 1030 TO 1440	ROGERIO	GERALDO	10/26/98
B	CHANGED PARAM. H1-01, H2-01, E1-04, E4-01 AND H3-02.	PABLO	GERALDO	6/18/98

DESCRIPTION	SPINDLE DRIVE PARAM. EZ-ISD V1.0		
DESIGNED	PABLO	11/27/1998	PROJECTION
DRAWER	ROGERIO	11/27/1998	SIZE A3
CONTROLLED	GERALDO	11/27/1998	
REFERENCE	SHEET 47D / 3-	SCALE 1:1	APPLICATION EZPATH-ISD V1.0

N°R80696 C

PRM	DESCRIPTION	VALUE
A1-00	SELECT LANGUAGE	0
A1-01	ACCESS LEVEL	4
A1-02	CONTROL METHOD	2
A1-03	INIT PARAMETERS	0
A1-04	ENTER PASSWORD	0
A1-05	SELECT PASSWORD	0
A2-01	USER PARAM 1	000
A2-02	USER PARAM 2	000
A2-03	USER PARAM 3	000
A2-04	USER PARAM 4	000
A2-05	USER PARAM 5	000
A2-06	USER PARAM 6	000
A2-07	USER PARAM 7	000
A2-08	USER PARAM 8	000
A2-09	USER PARAM 9	000
A2-10	USER PARAM 10	000
A2-11	USER PARAM 11	000
A2-12	USER PARAM 12	000
A2-13	USER PARAM 13	000
A2-14	USER PARAM 14	000
A2-15	USER PARAM 15	000
A2-16	USER PARAM 16	000
A2-17	USER PARAM 17	000
A2-18	USER PARAM 18	000
A2-19	USER PARAM 19	000
A2-20	USER PARAM 20	000
A2-21	USER PARAM 21	000
A2-22	USER PARAM 22	000
A2-23	USER PARAM 23	000
A2-24	USER PARAM 24	000
A2-25	USER PARAM 25	000
A2-26	USER PARAM 26	000
A2-27	USER PARAM 27	000
A2-28	USER PARAM 28	000
A2-29	USER PARAM 29	000
A2-30	USER PARAM 30	000
A2-31	USER PARAM 31	000
A2-32	USER PARAM 32	000
B1-01	REFERENCE SOURCE	1
B1-02	RUN SOURCE	1
B1-03	STOPPING METHOD	0
B1-04	REVERSE OPER	0
B1-05	ZERO-SPEED OPER	1

PRM	DESCRIPTION	VALUE
B1-06	CNTL INPUT SCANS	1
B1-07	LOC/REM RUN SEL	0
B2-01	DCINJ START FREQ	0.5
B2-02	DCINJ CURRENT	50
B2-03	DCINJ TIME@SRTAT	0.20
B2-04	DCINJ TIME@STOP	0.00
B3-01	SPDSRCH AT START	0
B3-02	SPDSRCH CURRENT	100
B3-03	SPDSRCH DEC TIME	2.0
B4-01	DELAY-ON TIMER	0.0
B4-02	DELAY-OFF TIMER	0.0
B5-01	PID MODE	0
B5-02	PID GAIN	1.00
B5-03	PID I TIME	1.0
B5-04	PID I LIMIT	100.0
B5-05	PID D TIME	0.00
B5-06	PID LIMIT	100.0
B5-07	PID OFFSET	0.0
B5-08	PID DELAY TIME	0.00
B6-01	DWELL REF @START	0.0
B6-02	DWELL TIME@START	0.0
B6-03	DWELL REF @STOP	0.0
B6-04	DWELL TIME @STOP	0.0
B7-01	DROOP QUANTITY	0.0
B7-02	DROOP DELAY TIME	0.05
B8-01	ENERGY SAVE GAIN	80
B8-02	ENERGY SAVE FREQ	0.0
B9-01	ZERO SERVO GAIN	5
B9-02	ZERO SERVO COUNT	10
C1-01	ACCEL TIME 1	2.0
C1-02	DECEL TIME 1	2.0
C1-03	ACCEL TIME 2	3.0
C1-04	DECEL TIME 2	2.0
C1-05	ACCEL TIME 3	3.0
C1-06	DECEL TIME 3	2.0
C1-07	ACCEL TIME 4	2.0
C1-08	DECEL TIME 4	2.0
C1-09	FAST STOP TIME	2.0
C1-10	ACC/DEC UNITS	1
C1-11	ACC/DEC SW FREQ	0.0
C2-01	SCRV ACC @ START	0.40
C2-02	SCRV ACC @ END	0.20
C2-03	SCRV DEC @ START	0.50

PRM	DESCRIPTION	VALUE
C2-04	SCRV DEC @ END	0.20
C3-01	SLIP COMP GAIN	1.0
C3-02	SLIP COMP TIME	200
C3-03	SLIP COMP LIMIT	200
C3-04	SLIP COMP REGEN	0
C3-05	FLUX SELECT	0
C4-01	TORQ COMP GAIN	0.50
C4-02	TORQ COMP TIME	20
C5-01	ASR P GAIN 1	20.00
C5-02	ASR I TIME 1	0.500
C5-03	ASR P GAIN 2	20.00
C5-04	ASR I TIME 2	0.500
C5-05	ASR LIMIT	0.0
C5-06	ASR DELAY TIME	0.004
C5-07	ASR GAIN SW FREQ	0.0
C5-08	ASR I LIMIT	400
C6-01	CARRIERFREQ MAX	10.0
C6-02	CARRIERFREQ MIN	10.0
C6-03	CARRIERFREQ GAIN	0
C7-01	HUNT PREV SELECT	1
C7-02	HUNT PREV GAIN	1.00
C8-08	AFR GAIN	1.60
C8-09	AFR TIME	50
C8-30	CARRIER IN TUNE	2
D1-01	REFERENCE 1	200.00
D1-02	REFERENCE 2	0.00
D1-03	REFERENCE 3	60.00
D1-04	REFERENCE 4	0.00
D1-05	REFERENCE 5	0.00
D1-06	REFERENCE 6	0.00
D1-07	REFERENCE 7	0.00
D1-08	REFERENCE 8	0.00
D1-09	JOG REFERENCE	6.00
D2-01	REF UPPER LIMIT	100.0
D2-02	REF LOWER LIMIT	0.0
D3-01	JUMP FREQ 1	0.0
D3-02	JUMP FREQ 2	0.0
D3-03	JUMP FREQ 3	0.0
D3-04	JUMP BANDWIDTH	1.0
D4-01	MOP REF MEMORY	0
D4-02	TRIM CONTROL LVL	10

REL.	MODIFICATION	MODIF.	APROV.	DATE
C	CHANGED PRM E4-01 FROM 105 TO 157	ROGERIO	GERALDO	10/26/98
B	CHANGED PARAM. C1-01/02, C4-01, C8-8	PABLO	GERALDO	3/03/98

DESCRIPTION: SPINDLE DRV PRM EZ-IISD V1.0

DESIGNED	PABLO	3/03/1998	PROJECTION
DRAWER	ROGERIO	3/03/1998	SIZE A3
CONTROLLED	GERALDO	3/03/1998	

REFERENCE	SHEET	SCALE	APPLICATION	N°
	47E / 1+	1:1	EZPATH-IISD V1.0	R80697 C

PRM	DESCRIPTION	VALUE
D5-01	TORQ CONTROL SEL	0
D5-02	TORQ REF FILTER	0
D5-03	SPEED LIMIT SEL	1
D5-04	SPEED LMT VALUE	0
D5-05	SPEED LMT BIAS	10
D5-06	REF HOLD TIME	0
E1-01	INPUT VOLTAGE	220
E1-02	MOTOR SELECTION	1
E1-03	V/F SELECTION	F
E1-04	MAX FREQUENCY	210.0
E1-05	MAX VOLTAGE	220.0
E1-06	BASE FREQUENCY	100.0
E1-07	MID FREQUENCY A	3.0
E1-08	MID VOLTAGE A	7.0
E1-09	MIN FREQUENCY	0.5
E1-10	MIN VOLTAGE	1.3
E1-11	MID FREQUENCY B	0.0
E1-12	MID VOLTAGE B	0.0
E1-13	BASE VOLTAGE	220.0
E2-00	MOTOR SELECTION	0
E2-01	MOTOR RATED FLA	88.0
E2-02	MOTOR RATED SLIP	0.62
E2-03	NO-LOAD CURRENT	47.5
E2-04	NUMBER OF POLES	6
E2-05	TERM RESISTENCE	0.053
E2-06	LEAK INDUTANCE	20.1
E2-07	SATURATION COMP1	0.40
E2-08	SATURATION COMP2	0.63
E2-09	MECHANICAL LOSS	0.0
E3-01	CONTROL METHOD	2
E4-01	MAX FREQUENCE 2	157.0
E4-02	MAX VOLTAGE 2	220.0
E4-03	BASE FREQUENCY 2	60.0
E4-04	MID FREQUENCY 2	3.0
E4-05	MID VOLTAGE 2	12.6
E4-06	MIN FREQUENCY 2	0.5
E4-07	MIN VOLTAGE 2	2.3
E5-01	MOTOR RATED FLA2	88.0
E5-02	MOT RATED SLIP2	1.05
E5-03	NO-LOAD CURRENT2	25.9
E5-04	NUMBER OF POLE2	6
E5-05	TERM RESISTENCE2	0.127
E5-06	LEAK INDUTANCE2	20.1

PRM	DESCRIPTION	VALUE
F1-01	PG PULSES/REV	1024
F1-02	PG FDBK LOSS SEL	1
F1-03	PG OVERSPEED SEL	1
F1-04	PG DEVIATION SEL	3
F1-05	PG ROTATION SEL	0
F1-06	PG OUTPUT RATIO	1
F1-07	PG RAMP PI/I SEL	0
F1-08	PG OVERSPD LEVEL	115
F1-09	PG OVERSPD TIME	0.0
F1-10	PG DEVIATION LEVEL	10
F1-11	PG DEVIATION TIME	0.5
F1-12	PG # GEAR TEETH1	0
F1-13	PG # GEAR TEETH2	0
F1-14	PGO DETECT TIME	2.0
F2-01	AI-14 INPUT SEL	0.
F3-01	DI INPUT	0
F4-01	AO CH1 SELECT	2
F4-02	AO CH1 GAIN	1.00
F4-03	AO CH2 SELECT	3
F4-04	AO CH2 GAIN	0.50
F5-01	DO-02 CH1 SELECT	0
F5-02	DO-02 CH2 SELECT	1
F6-01	DO-08 SELECTION	0
F7-01	PO-36F SELECTION	1
F8-01	E-15 DET SEL	1
F9-01	EFO SELECTION	1
F9-02	EFO DTCT SEL	1
F9-03	EFO FAULT SEL	1
F9-04	TRACE SAMPLE TRIM	1
F9-05	TORQ REF/LMT SEL	1
F9-06	BUS FAULT SEL	1
H1-01	TERMINAL 3 SEL	24
H1-02	TERMINAL 4 SEL	14
H1-03	TERMINAL 5 SEL	3
H1-04	TERMINAL 6 SEL	16
H1-05	TERMINAL 7 SEL	6
H1-06	TERMINAL 8 SEL	8
H2-01	TERMINAL 9 SEL	1
H2-02	TERMINAL 25 SEL	1
H2-03	TERMINAL 26 SEL	2
H3-01	TERM 13 SIGNAL	0
H3-02	TERMINAL 13 GAIN	120.0
H3-03	TERMINAL 13 BIAS	0.0

PRM	DESCRIPTION	VALUE
H3-04	TERM 16 SIGNAL	0
H3-05	TERMINAL 16 SEL	0
H3-06	TERMINAL 16 GAIN	100.0
H3-07	TERM 16 BIAS	0.0
H3-08	TERM 14 SIGNAL	2
H3-09	TERMINAL 14 SEL	1F
H3-10	TERMINAL 14 GAIN	100.0
H3-11	TERMINAL 14 BIAS	0.0
H3-12	FILTER AVG TIME	0.00
H4-01	TERMINAL 21 SEL	2
H4-02	TERMINAL 21 GAIN	1.00
H4-03	TERMINAL 21 BIAS	0.0
H4-04	TERMINAL 23 SEL	3
H4-05	TERMINAL 23 GAIN	0.50
H4-06	TERMINAL 23 BIAS	0.0
H4-07	AO LEVEL SELECT	0
H5-01	SERIAL COMM ADR	1F
H5-02	SERIAL BAUD RATE	3
H5-03	SERIAL COM SEL	0
H5-04	SERIAL FAULT SEL	3
H5-05	SERIAL FLT DTCT	1
L1-01	MOL FAULT SELECT	1
L1-02	MOL TIME CONST	1.0
L2-01	PWRL SELECTION	0
L2-02	PWRL RADETHRU T	2.0
L2-03	PWRL BASEBLOCK T	0.7
L2-04	PWRL V/F RAMP T	0.3
L2-05	PUV DET LEVEL	190
L2-06	KEB FREQUENCY	0.0
L3-01	STALLP ACCEL SEL	1
L3-02	STALLP ACCEL LVL	150
L3-03	STALLP CHP LVL	100
L3-04	STALLP DECEL SEL	0
L3-05	STALLP RUN SEL	1
L3-06	STALLP RUN LEVEL	160
L4-01	SPD AGREE LEVEL	0.0
L4-02	SPD AGREE WIDTH	2.0
L4-03	SPD AGREE LVL +-	0.0
L4-04	SPD AGREE WDTH +-	2.0
L4-05	REF LOSS SEL	0
L5-01	NUM OF RESTARTS	0
L5-02	RESTART SEL	0
L5-03	MAX RESTART TIME	10.0

REL	MODIFICATION	MODIF.	APROV.	DATE
C	CHANGED PRM E4-01 FROM 105 TO 157	ROGERIO	GERALDO	10/26/98
B	CHANGED PARAM. C1-01/02, C4-01, C8-8	PABLO	GERALDO	3/03/98

DESCRIPTION: SPINDLE DRV PRM EZ-IISD V1.0

DESIGNED	PABLO	3/03/1998	PROJECTION
DRAWER	ROGERIO	3/03/1998	SIZE A3
CONTROLLED	GERALDO	3/03/1998	

REFERENCE	SHEET	SCALE	APPLICATION	
	47E / 2+	1:1	EZPATH-IISD V1.0	N°R80697 C

OR

PRM	DESCRIPTION	VALUE
L6-01	TORQ DET 1 SEL	0
L6-02	TORQ DET 1 LVL	150
L6-03	TORQ DET 1 TIME	0.1
L6-04	TORQ DET 2 SEL	0
L6-05	TORQ DET 2 LVL	150
L6-06	TORQ DET 2 TIME	0.1
L7-01	TORQ LIMIT FWD	200
L7-02	TORQ LIMIT REV	200
L7-03	TORQ LMT FWD RGN	200
L7-04	TORQ LMT REV RGN	200
L7-05	TORQ LIMIT GAIN	2.0
L7-06	TORQ LIMIT TIME	200
L8-01	DB RESISTOR PROT	0
L8-02	OH PRE-ALARM LVL	95
L8-03	OH PRE-ALARM SEL	3
L8-05	PH LOSS IN SEL	0
L8-07	PH LOSS OUT SEL	1
L8-10	GROUND FAULT SEL	1
O1-01	USER MONITOR SEL	6
O1-02	POWER-ON MONITOR	1
O1-03	DISPLAY SCALING	0
O1-04	DISPLAY UNITS	0
O1-05	ADDRES DISPLAY	0
O2-01	LOCAL/REMOTE KEY	1
O2-02	OPER STOP KEY	1
O2-03	USER DEFAULTS	0
O2-04	INVERTER MODEL #	8
O2-05	OPERATOR M.O.P.	0
O2-06	OPER DETECTION	0
O2-07	ELAPSED TIME SET	0
O2-08	ELAPSED TIME RUN	0
O2-09	INIT MODE SEL	1

NOTES:

1. THE PARAMETERS O2-07 AND 02-08 HAVE THEIR SETPOINT UPDATED IN FUNCTION OF THE TIME;
2. THE G5 FIRMWARE RELEASE MUST BE IDENTIFIED AS S1042. IT IS POSSIBLE TO VERIFY THE CURRENT FIRMWARE RELEASE USING THE CONSTATNT U1-14 OF THE MONITOR MENU;
3. USE THE 'G5 SUPPORT TOOL' SOFTWARE, RELEASE 1.0 (BETA VERSION) TO DOWNLOAD THE PARAMETER FILE FROM THE PC TO THE DRIVE.

ATTENTION:

IF IT IS NECESSARY TO DOWNLOAD OR REENTER ANY PARAMETER SETTING, USE THE DISKETTE IDENTIFIED WITH THE SAME ROMI PART NUMBER OF THIS SHEET. THE DISKETTE MAY BE FOUND IN THE MACHINE LOG BOOK, INSIDE THE ELECTRICAL CABINET.

REL.	MODIFICATION	MODIF.	APROV.	DATE
C	CHANGED PRM E4-01 FROM 105 TO 157	ROGERIO	GERALDO	10/26/98
B	CHANGED PARAM. C1-01/02, C4-01, C8-6	PABLO	GERALDO	3/03/98

DESCRIPTION	SPINDLE DRV PRM EZ-IISD V1.0		
	DESIGNED	PABLO	3/03/1998
	DRAWER	ROGERIO	3/03/1998
	CONTROLLED	GERALDO	3/03/1998
REFERENCE	SHEET 47E / 3-	SCALE 1:1	APPLICATION EZPATH-IISD V1.0

PROJECTION | SIZE A3

N°R80697 C

PRM	DESCRIPTION	AXES	
		X	Z
CN-01	MEMORY SWITCH 1	008CH	008CH
CN-02	MEMORY SWITCH 2	0000H	001H
CN-03	SPEED REFERENCE GAIN	00210	00280
CN-04	SPEED LOOP GAIN	00055	00055
CN-05	SPEED LOOP I TIME	02000	02000
CN-06	EMERGENCY STOP TORQUE	00800	00800
CN-07	SOFT START TIME(ACCEL)	00000	00000
CN-08	FORWARD TORQUE LIMIT	00800	00800
CN-09	REVERSE TORQUE LIMIT	00800	00800
CN-0A	PG DIVIDING RATIO	02000	02000
CN-0B	ZERO SPEED LEVEL	00020	00020
CN-0C	MODE SW(TORQUE)	00200	00200
CN-0D	MODE SW(SPEED)	00000	00000
CN-0E	MODE SW(ACCELERATION)	00000	00000
CN-0F	MODE SW(ERROR PULSE)	00000	00000
CN-10	JOG SPEED	00500	00500
CN-11	NUMBER OF ENCODER PULSE	08192	08192
CN-12	DELAY TIME (BRAKE->SVOFF)	00000	00000
CN-13	TORQUE REFERENCE GAIN	00030	00030
CN-14	SDP LMT TORQUE CONTROL 1	10000	10000
CN-15	BRAKE TIMING(SPEED)	00100	00100
CN-16	BRAKE TIMING(WAIT TIME)	00050	00050
CN-6A		H.842A	H.842A

PRM	DESCRIPTION	AXES	
		X	Z
CN-17	TORQUE FILTER TIME	00004	00004
CN-18	FORWARD CURRENT LIMIT	00100	00100
CN-19	REVERSE CURRENT LIMIT	00100	00100
CN-1A	POSITION LOOP GAIN	00040	00040
CN-1B	COIN OUTPUT WIDTH	00007	00007
CN-1C	BIAS	00000	00000
CN-1D	FEED FORWARD	00000	00000
CN-1E	OVERFLOW	01024	01024
CN-1F	1ST SPEED	00100	00100
CN-20	2ND SPEED	00200	00200
CN-21	3RD SPEED	00300	00300
CN-22	V-CMP OUTPUT WIDTH	00010	00010
CN-23	SOFT START TIME(DECEL)	00000	00000
CN-24	ELECTROGEAR(NUMERATOR)	00004	00004
CN-25	ELECTROGEAR(DENOMINATOR)	00001	00001
CN-26	POITION REF ACC/DEC TIME	00000	00000
CN-27	FEED FORWARD FILTER	00000	00000
CN-28	SPPED LOOP COMPENSATION	00000	00000
CN-29	ZERO CLAMP LEVEL	00010	00010
CN-2A	MOTOR TYPE	00142	00142
CN-2B	CONTROL TYPE	00000	00000
CN-2C	PG VOLTAGE	52500	52500
CN-2D	OUTPUT SIGNALS SELECT	00210	00210

ATTENTION:

IF IT IS NECESSARY TO DOWNLOAD OR REENTER ANY PARAMETER SETTING, USE THE DISKETTE IDENTIFIED WITH THE SAME ROMI PART NUMBER OF THIS SHEET. THE DISKETTE MAY BE FOUND IN THE MACHINE LOG BOOK, INSIDE THE ELECTRICAL CABINET.

NOTES:

1. CN-6A CAN BE CHANGED ONLY BY KEYPAD;
2. USE THE 'SVMON' SOFTWARE TO DOWNLOAD THE PARAMETER FILE FROM THE PC TO THE DRIVE;

REL	MODIFICATION	MODIF.	APROV.	DATE
B	CHANGED CN-02, CN-03 AND CN-0A	PABLO	GERALDO	9/15/97

DESCRIPTION	AXIS DRIVE PARAMETERS EZPATH ISD				
	DESIGNED	PABLO	9/15/1997	PROJECTION	SIZE
	DRAWER	ROGERIO	9/15/1997		A3
	CONTROLLED	GERALDO	9/15/1997		
REFERENCE	SHEET 47F / 1-	SCALE 1:1	APPLICATION EZPATH-ISD V1.0	N°R74652 B	

OR

PRM	DESCRIPTION	AXES	
		X	Z
CN-01	MEMORY SWITCH 1	008CH	008CH
CN-02	MEMORY SWITCH 2	0000H	0001H
CN-03	SPEED REFERENCE GAIN	00210	00186
CN-04	SPEED LOOP GAIN	00055	00047
CN-05	SPEED LOOP I TIME	02000	02200
CN-06	EMERGENCY STOP TORQUE	00800	00300
CN-07	SOFT START TIME(ACCEL)	00000	00000
CN-08	FORWARD TORQUE LIMIT	00800	00300
CN-09	REVERSE TORQUE LIMIT	00800	00300
CN-0A	PG DIVIDING RATIO	02000	03000
CN-0B	ZERO SPEED LEVEL	00020	00020
CN-0C	MODE SW(TORQUE)	00200	00300
CN-0D	MODE SW(SPEED)	00000	00000
CN-0E	MODE SW(ACCELERATION)	00000	00000
CN-0F	MODE SW(ERROR PULSE)	00000	00000
CN-10	JOG SPEED	00500	00500
CN-11	NUMBER OF ENCODER PULSE	08192	08192
CN-12	DELAY TIME (BRAKE->SVOFF)	00000	00000
CN-13	TORQUE REFERENCE GAIN	00030	00030
CN-14	SDP LMT TORQUE CONTROL 1	10000	10000
CN-15	BRAKE TIMING(SPEED)	00100	00100
CN-16	BRAKE TIMING(WAIT TIME)	00050	00050
CN-6A		H.842A	H.842A

PRM	DESCRIPTION	AXES	
		X	Z
CN-17	TORQUE FILTER TIME	00004	00004
CN-18	FORWARD CURRENT LIMIT	00100	00100
CN-19	REVERSE CURRENT LIMIT	00100	00100
CN-1A	POSITION LOOP GAIN	00040	00056
CN-1B	COIN OUTPUT WIDTH	00007	00007
CN-1C	BIAS	00000	00000
CN-1D	FEED FORWARD	00000	00000
CN-1E	OVERFLOW	01024	01024
CN-1F	1ST SPEED	00100	00100
CN-20	2ND SPEED	00200	00200
CN-21	3RD SPEED	00300	00300
CN-22	V-CMP OUTPUT WIDTH	00010	00010
CN-23	SOFT START TIME(DECEL)	00000	00000
CN-24	ELECTROGEAR(NUMERATOR)	00004	00004
CN-25	ELECTROGEAR(DENOMINATOR)	00001	00001
CN-26	POITION REF ACC/DEC TIME	00000	00000
CN-27	FEED FORWARD FILTER	00000	00000
CN-28	SPPED LOOP COMPENSATION	00000	00000
CN-29	ZERO CLAMP LEVEL	00010	00010
CN-2A	MOTOR TYPE	00142	00143
CN-2B	CONTROL TYPE	00000	00000
CN-2C	PG VOLTAGE	52500	52500
CN-2D	OUTPUT SIGNALS SELECT	00210	00210

ATTENTION:

IF IT IS NECESSARY TO DOWNLOAD OR REENTER ANY PARAMETER SETTING, USE THE DISKETTE IDENTIFIED WITH THE SAME ROMI PART NUMBER OF THIS SHEET. THE DISKETTE MAY BE FOUND IN THE MACHINE LOG BOOK, INSIDE THE ELECTRICAL CABINET.

NOTES:

1. CN-6A CAN BE CHANGED ONLY BY KEYPAD;
2. USE THE 'SVMON' SOFTWARE TO DOWNLOAD THE PARAMETER FILE FROM THE PC TO THE DRIVE;

REL.	MODIFICATION	MODIF.	APROV.	DATE

REL.	MODIFICATION	MODIF.	APROV.	DATE

DESCRIPTION	AXIS DRIVE PARM EZ-IISD V1.0			
	DESIGNED	PABLO	11/06/1997	PROJECTION
	DRAWER	ROGERIO	11/06/1997	SIZE A3
	CONTROLLED	GERALDO	11/06/1997	
REFERENCE	SHEET 47G / 1-	SCALE 1:1	APPLICATION EZPATH-IISD V1.0	N° R80123 A

OR

PRM	DESCRIPTION	VALUE
000	REVISION LEVEL	000000003.2
001	LO-SPEED (BELOW BREAKPOINT) ACCELERATION	00000001355
002	HI-SPEED (ABOVE BREAKPOINT) ACCELERATION	00000001355
003	ACCELERATION BREAK-POINT	00000003836
004	LO-SPEED (BELOW BREAKPOINT) DECELERATION	00000001185
005	HI-SPEED (ABOVE BREAKPOINT) DECELERATION	00000000000
006	DECELERATION BREAK-POINT	00000000000
007	MAXIMUM TRAVERSE RATE	0000049784
008	Z-AXIS TRAVERSE RATE	0000066717
009	HOMING SPEED	00000006773
010	ACCEL/DECEL PROFILE SELECTION	00000000000
011	RESIDUAL FEEDRATE FOR DLT RAMP	00000000169
012	MINIMUM REDUCTION OF FOLLOWING ERROR PER TICK	00000000085
013	% OF JOG FOLLOWING ERROR USED AS FORT PER TICK	00000000077
014	MEASURING FEED	00000005070
015	PROBING POST-HIT CONTINUATION DISTANCE	00000127000
016	TOUCH-PROBE BREAK-OFF DISTANCE	00000127000
017	X (1ST) AXIS MOVE NEGATIVE LIMIT OF TRAVEL	-0022000000
018	X (1ST) AXIS MOVE POSITIVE LIMIT OF TRAVEL	00000000000
019	Y (2ND) AXIS MOVE NEGATIVE LIMIT OF TRAVEL	-2147483648
020	Y (2ND) AXIS MOVE POSITIVE LIMIT OF TRAVEL	02147483647
021	Z (3RD) AXIS MOVE NEGATIVE LIMIT OF TRAVEL	-0101600000
022	Z (3RD) AXIS MOVE POSITIVE LIMIT OF TRAVEL	00000000000
023	C (4TH) AXIS MOVE NEGATIVE LIMIT OF TRAVEL	-2147483648
024	C (4TH) AXIS MOVE POSITIVE LIMIT OF TRAVEL	02147483647
025	S (5TH) AXIS MOVE NEGATIVE LIMIT OF TRAVEL	-2147483648
026	S (5TH) AXIS MOVE POSITIVE LIMIT OF TRAVEL	02147483647
027	X (1ST) AXIS HOME SWITCH OFFSET	00000600000
028	Y (2ND) AXIS HOME SWITCH OFFSET	00000000000
029	Z (3RD) AXIS HOME SWITCH OFFSET	00000600000
030	C (4TH) AXIS HOME SWITCH OFFSET	00000000000
031	S (5TH) AXIS HOME SWITCH OFFSET	00000000000
032	X (1ST) AXIS ENCODER RESOLUTION	00000000050
033	Y (2ND) AXIS ENCODER RESOLUTION	00000000100
034	Z (3RD) AXIS ENCODER RESOLUTION	00000000050
035	C (4TH) AXIS ENCODER RESOLUTION	00000000800
036	S (5TH) AXIS ENCODER RESOLUTION	00000000072
037	JOGKNOB ENCODER RESOLUTION	00000000600
038	"HOMING SEQUENCE" PRM CTRLS "FIND HOME" ROUTINE	00178928640
039	DEAD-BAND (NULL ZONE) FOR JOY-STICKS	00000000080
040	SCALE FACTOR FOR JOY-STICKS	00000000256
041	UNUSED	00000000144
042	UNUSED	00000000144

PRM	DESCRIPTION	VALUE
043	UNUSED	00000000144
044	UNUSED	00000000144
045	UNUSED	00000000000
046	UNUSED	00000000000
047	UNUSED	00000000000
048	UNUSED	00000000000
049	UNUSED	00000000000
050	IN-POSITION TOLERANCE	0000000762Ø
051	MAXIMUM FOLLOWING ERROR	00000127000
052	FOLLOWING ERROR LIMIT	0000002540Ø
053	MAXIMUM SPINDLE SLIP	00000000240
054	SPINDLE SLIP LIMIT	00000000080
055	X (1ST) AXIS BACKLASH	00000000000
056	Y (2ND) AXIS BACKLASH	00000000000
057	Z (3RD) AXIS BACKLASH	00000000000
058	C (4TH) AXIS BACKLASH	00000000000
059	S (5TH) AXIS BACKLASH	00000000000
060	X (1ST) AXIS VELOCITY GAIN	00000000310
061	Y (2ND) AXIS VELOCITY GAIN	00000000000
062	Z (3RD) AXIS VELOCITY GAIN	00000000232
063	C (4TH) AXIS VELOCITY GAIN	00000000000
064	S (5TH) AXIS VELOCITY GAIN	00000000000
065	X (1ST) AXIS SERVO GAIN	00000000007
066	Y (2ND) AXIS SERVO GAIN	00000000008
067	Z (3RD) AXIS SERVO GAIN	00000000007
068	C (4TH) AXIS SERVO GAIN	00000000000
069	S (5TH) AXIS SERVO GAIN	00000000000
070	SPINDLE VELOCITY SAMPLE PERIOD	00000000047
071	SPINDLE COMMAND GAIN	00000032154
072	SPINDLE-MOTOR MINIMUM RPM	00000000040
073	SPINDLE-MOTOR MAXIMUM RPM	00000004000
074	SPINDLE-RANGE #1 MAXIMUM RPM	00000002100
075	SPINDLE-RANGE #2 MAXIMUM RPM	00000003000
076	SPINDLE-RANGE #3 MAXIMUM RPM	00000000000
077	SPINDLE-RANGE #4 MAXIMUM RPM	00000000000
078	SPINDLE-RANGE #5 MAXIMUM RPM	00000000000
079	SPINDLE-RANGE #6 MAXIMUM RPM	00000000000
080	SPINDLE-RANGE #7 MAXIMUM RPM	00000000000
081	SPINDLE-RANGE #8 MAXIMUM RPM	00000000000
082	SPINDLE ANALOGIC-FEEDBACK GAIN	00000000000
083	LUB PUMP INTERVAL	00000000800
084	LUB PUMP DURATION	00000000000
085	X AXIS CLEARENCE POINT	00000000000

REL.	MODIFICATION	MODIF.	APROV.	DATE
B	SEE NOTE REL H AT PAGE 58 A	FRANCISCO	BAPTISTA	11/16/1999

DESCRIPTION: EZ-ISD V1 CNC PARAMETERS - OPT

DESIGNED	ROGERIO	9/21/1998	PROJECTION
DRAWER	ROGERIO	9/21/1998	SIZE A3
CONTROLLED	GERALDO	9/21/1998	

REFERENCE	SHEET	SCALE	APPLICATION	N°
	47H / 1+	1:1	EZPATH-SD V1.0	R88783 B

PRM	DESCRIPTION	VALUE
172	TL1AUF OUTPUT COMMAND REGISTER (FOR TEST USE)	00000000000
173	DESIRED NOVRAM ADDRESS	00000000000
174	DATA TO BE WRITTEN INTO NOVRAM	00000000000
175	NOVRAM ADDRESS	00000000000
176	REGISTER USED BY AUFDRVR TO ACCESS NOVRAM	00000000000
177	NOVRAM BYTE 00	00000000000
178	NOVRAM BYTE 01	00000000000
179	NOVRAM BYTE 02	00000000000
180	NOVRAM BYTE 03	00000000000
181	NOVRAM BYTE 04	00000000000
182	NOVRAM BYTE 05	00000000000
183	NOVRAM BYTE 06	00000000000
184	NOVRAM BYTE 07	00000000000
185	NOVRAM BYTE 08	00000000000
186	NOVRAM BYTE 09	00000000000
187	NOVRAM BYTE 10	00000000000
188	NOVRAM BYTE 11	00000000000
189	NOVRAM BYTE 12	00000000000
190	NOVRAM BYTE 13	00000000000
191	NOVRAM BYTE 14	00000000000
192	NOVRAM BYTE 15	00000000000
193	TOOL CHANGER #2 COMMAND REGISTER	00000000700
194	TOOL CHANGER #2 STATUS	00000000300
195	TOOL CHANGER #2 CONTROL REGISTER	00000000100
196	DESIRED CURRENT TOOL POSITION	00000000600
197	CURRENT TOOL CARROUSEL POSITION	00000000100
198	INPUTS TO TLAUF	00000000000
199	TL2AUF OUTPUT COMMAND REGISTER (FOR TEST USE)	00000000000
200	DESIRED NOVRAM ADDRESS	00000000000
201	DATA TO BE WRITTEN INTO NOVRAM	00000000000
202	NOVRAM ADDRESS	00000000001
203	REGISTER USED BY AUFDRVR TO ACCESS NOVRAM	00000145077
204	NOVRAM BYTE 00	00000000500
205	NOVRAM BYTE 01	00000000800
206	NOVRAM BYTE 02	00000000500
207	NOVRAM BYTE 03	00000001000
208	NOVRAM BYTE 04	00000001023
209	NOVRAM BYTE 05	00000000000
210	NOVRAM BYTE 06	00000000000
211	NOVRAM BYTE 07	00000000000
212	NOVRAM BYTE 08	00000000000

PRM	DESCRIPTION	VALUE
213	NOVRAM BYTE 09	00000000000
214	NOVRAM BYTE 10	00000000000
215	NOVRAM BYTE 11	00000000000
216	NOVRAM BYTE 12	00000000000
217	NOVRAM BYTE 13	00000000000
218	NOVRAM BYTE 14	00000000000
219	NOVRAM BYTE 15	00000000000
220	FEEDRATE OVERRIDE (%)	00000001600
221	SPINDLE SPEED POT.	00000000000
222	X AXIS JOYSTICK	00000000013
223	Y AXIS JOYSTICK	00000000013
224	Z AXIS JOYSTICK	00000000013
225	W AXIS JOYSTICK	00000000000
226	S AXIS JOYSTICK	00000000000

REL	MODIFICATION	MODIF.	APROV.	DATE
B	SEE NOTE REL H AT PAGE 50 A	FRANCISCO	BAPTISTA	11/16/1999

DESCRIPTION: EZ-ISD V1 CNC PARAMETERS - OPT

DESIGNED	ROGERIO	9/21/1998	PROJECTION
DRAWER	ROGERIO	9/21/1998	SIZE A3
CONTROLLED	GERALDO	9/21/1998	

REFERENCE	SHEET	SCALE	APPLICATION	N°R88783 B
	47H / 3+	1:1	EZPATH SD V1.0	

PRM	DESCRIPTION	VALUE
086	Y CLEARANCE POINTE	00000000000
087	X CENTER-OF-ROTATION FOR ROTARY AXIS	00000000000
088	Y CENTER-OF-ROTATION FOR ROTARY AXIS	00000000000
089	Z CENTER-OF-ROTATION FOR ROTARY AXIS	00000000000
090	TOOL-CHANGER NUMBER OF TOOLS	00000000000
091	TOOL-CHANGER CONFIGURATION	00000000000
092	TOOL-CAHNGER ORIENT POSITION	00000000000
093	TOOL-CAHNGER Z-AXIS OFFSET	-01016000000
094	JOGGING FEEDRATE	00000033867
095	SPARE (UNASSIGNED) PARAMETER	00000000000
096	SPARE (UNASSIGNED) PARAMETER	00000000000
097	TIME-OUT FOR PLC PARAMETER	00000000000
098	MASTER PARAMETER	00891551744
099	X (1ST) AXIS HOME POSITION	00000000000
100	Y (2ND) AXIS HOME POSITION	00000000000
101	Z (3RD) AXIS HOME POSITION	00000000000
102	C (4TH) AXIS HOME POSITION	00000000000
103	S (5TH) AXIS HOME POSITION	00000000000
104	TOOL-CHANGE CLEARANCE	00000000000
105	X (1ST) AXIS LEADSCREW COMPENSATION	00000000000
106	Y (2ND) AXIS LEADSCREW COMPENSATION	00000000000
107	Z (3RD) AXIS LEADSCREW COMPENSATION	00000000000
108	C (4TH) AXIS LEADSCREW COMPENSATION	00000000000
109	SPINDLE HORSEPOWER LIMIT - POWER	00000001792
110	SPINDLE HORSEPOWER LIMIT - SPPED	00000001500
111	SPINDLE CURRENT SENSE GAIN	00000000450
112	AXIS RUN-AWAY TEST VELOCITY DIFFERENCE	00000001000
113	AXIS RUN-AWAY TEST HYSTERESIS	00000000100
114	X AXIS DEFFERENTIAL FOLLOWING ERROR GAIN	00000000020
115	Y AXIS DEFFERENTIAL FOLLOWING ERROR GAIN	00000000000
116	Z AXIS DEFFERENTIAL FOLLOWING ERROR GAIN	00000000020
117	W AXIS DEFFERENTIAL FOLLOWING ERROR GAIN	00000000000
118	S AXIS DEFFERENTIAL FOLLOWING ERROR GAIN	00000000000
119	X AXIS FOLLOWING ERROR GAIN	00000000020
120	Y AXIS FOLLOWING ERROR GAIN	00000000000
121	Z AXIS FOLLOWING ERROR GAIN	00000000020
122	W AXIS FOLLOWING ERROR GAIN	00000000000
123	S AXIS FOLLOWING ERROR GAIN	00000000000
124	MAXIMUM X AXIS PWM DEVIATION	00000000280
125	MAXIMUM Y AXIS PWM DEVIATION	00000000280
126	MAXIMUM Z AXIS PWM DEVIATION	00000000280
127	MAXIMUM W AXIS PWM DEVIATION	00000000340
128	MAXIMUM S AXIS PWM DEVIATION	00000000000

PRM	DESCRIPTION	VALUE
129	X AXIS MOTOR VOLTS PER 1000 RPM	00000000031
130	Y AXIS MOTOR VOLTS PER 1000 RPM	00000000031
131	Z AXIS MOTOR VOLTS PER 1000 RPM	00000000031
132	W AXIS MOTOR VOLTS PER 1000 RPM	00000000031
133	S AXIS MOTOR VOLTS PER 1000 RPM	00000000028
134	X AXIS ENCODER LINES PER MOTOR REVOLUTION	00000002000
135	Y AXIS ENCODER LINES PER MOTOR REVOLUTION	00000002000
136	Z AXIS ENCODER LINES PER MOTOR REVOLUTION	00000002000
137	W AXIS ENCODER LINES PER MOTOR REVOLUTION	00000000100
138	S AXIS ENCODER LINES PER MOTOR REVOLUTION	00000001024
139	BUS VOLTAGE FOR PWM AMPLIFIER	00000000130
140	PWM OFFSET FOR X,Y,Z,W AXIS	00000000001
141	PWM AMP LOAD INTEGRATOR LIMIT	00000065536
142	FILTER K FOR DIGITAL FILTER	00000000005
143	FILTER K FOR DIGITAL FILTER	00000000015
144	FILTER K FOR DIGITAL FILTER	00000000000
145	FILTER K FOR DIGITAL FILTER	00000000000
146	X-AXIS LEAD-COMP INTERVAL	00000000000
147	Y-AXIS LEAD-COMP INTERVAL	00000000000
148	Z-AXIS LEAD-COMP INTERVAL	00000000000
149	W-AXIS LEAD-COMP INTERVAL	00000000000
150	MACHINE FAULTS BYTE	00000000000
151	AXIS LIMIT BYTE	00000000000
152	AUXILIARY LIMITS BYTE	00000000000
153	DRIVE FULTS BYTE	00000000000
154	MACHINE STATUS BYTE	00000000001
155	HOME SWITCH STATUS BYTE	00000000005
156	MACHINE OPTIONS STATUS BYTE	00000000000
157	USER STATUS BYTE	00000000000
158	SWITCH STATUS BYTE #1	00167772160
159	SWITCH STATUS BYTE #2	00000000000
160	MACHINE COMMAND BYTE #1	00000000065
161	MACHINE OPTIONS COMMAND BYTE	00000000002
162	USER COMMAND BITS REGISTER	00000000000
163	SPINDLE COMMAND BYTE	00000002048
164	SPINDLE STATUS BYTE	00000000005
165	COMMANDED SPINDLE SPPED (RPM)	00000000200
166	TOOL CHANGER #1 COMMAND REGISTER	00000000000
167	TOOL CHANGER STATUS	00000000128
168	TOOL CHANGER CONTROL REGISTER	00000000000
169	DESIRED CURRENT TOOL POSITION	00000000000
170	CURRENT TOOL CARROUSEL POSITION	00000000000
171	INPUTS TO TLAUF	00000000000

REL.	MODIFICATION	MODIF.	APROV.	DATE
B	SEE NOTE REL. H AT PAGE 58 A	FRANCISCO	BAPTISTA	11/16/1999

DESCRIPTION: EZ-ISD V1 CNC PARAMETERS - OPT

DESIGNED	ROGERIO	9/21/1998	PROJECTION
DRAWER	ROGERIO	9/21/1998	SIZE A3
CONTROLLED	GERALDO	9/21/1998	

REFERENCE	SHEET	SCALE	APPLICATION	N°R88783 B
	47H / 2+	1:1	EZPATH-SD V1.0	

ATTENTION:

IF IT IS NECESSARY TO DOWNLOAD OR REENTER ANY PARAMETER SETTING, USE THE DISKETTE IDENTIFIED WITH THE SAME ROMI PART NUMBER OF THIS SHEET. THE DISKETTE MAY BE FOUND IN THE MACHINE LOG BOOK, INSIDE THE ELECTRICAL CABINET.

NOTES:

1. THE STATUS PARAMETERS ARE USUALLY CHANGING THEIR ACTUAL SETTING, BECAUSE THEY HOLD THE ACTUAL MACHINE STATUS;
2. THE PARAMETERS 55 AND 57 HAVE DIFFERENT SETPOINT FROM ONE MACHINE TO ANOTHER. THE CORRECT SETPOINT CAN BE FOUND IN THE MACHINE LOG BOOK IN THE CABINET.
3. PARAMETER 208. THIS PARAMETER MUST BE ACCESSED THROUGH PFM IN ORDER TO CONFIGURE THE MACHINE OPTIONS. THIS ACTION IS ALWAYS TAKEN WHEN FIRST INSTALLING THE MACHINE OR WHEN AN OPTIONAL DEVICE IS INSTALLED.

FUNCTIONS:

TURRET
BAR FEEDER
CHUCK
TAILSTOCK
AUTO GEAR CHANGE
HYDRAULICS
AIR TURRET
POWERDEX

SELECT THE DESIRED OPTION AND PRESS <ENTER>.

REL.	MODIFICATION	MODIF.	APROV.	DATE
B	SEE NOTE 'REL. H' AT PAGE 50 A	FRANCISCO	BAPTISTA	11/16/1999

DESCRIPTION	EZ-ISD V1 CNC PARAMETERS - OPT		
	DESIGNED	ROGERIO	9/21/1998
	DRAWER	ROGERIO	9/21/1998
	CONTROLLED	GERALDO	9/21/1998

PROJECTION | SIZE: A3

REFERENCE	SHEET	SCALE	APPLICATION	N°
	47H / 4-	1:1	EZPATH SD V1.0	R88783 B

PRM	DESCRIPTION	VALUE
000	REVISION LEVEL	000000003.2
001	LO-SPEED (BELOW BREAKPOINT) ACCELERATION	00000001355
002	HI-SPEED (ABOVE BREAKPOINT) ACCELERATION	00000001355
003	ACCELERATION BREAK-POINT	00000004233
004	LO-SPEED (BELOW BREAKPOINT) DECELERATION	00000001355
005	HI-SPEED (ABOVE BREAKPOINT) DECELERATION	00000000000
006	DECELERATION BREAK-POINT	00000000000
007	MAXIMUM TRAVERSE RATE	00000049784
008	Z-AXIS TRAVERSE RATE	00000066717
009	HOMING SPEED	00000006773
010	ACCEL/DECEL PROFILE SELECTION	00000000000
011	RESIDUAL FEEDRATE FOR DLT RAMP	00000000085
012	MINIMUM REDUCTION OF FOLLOWING ERROR PER TICK	00000000085
013	% OF JOG FOLLOWING ERROR USED AS FDRT PER TICK	00000000077
014	MEASURING FEED	00000005070
015	PROBING POST-HIT CONTINUATION DISTANCE	00000127000
016	TOUCH-PROBE BREAK-OFF DISTANCE	00000127000
017	X (1ST) AXIS MOVE NEGATIVE LIMIT OF TRAVEL	-002794000
018	X (1ST) AXIS MOVE POSITIVE LIMIT OF TRAVEL	00000000000
019	Y (2ND) AXIS MOVE NEGATIVE LIMIT OF TRAVEL	-2147483648
020	Y (2ND) AXIS MOVE POSITIVE LIMIT OF TRAVEL	02147483647
021	Z (3RD) AXIS MOVE NEGATIVE LIMIT OF TRAVEL	-01524000000
022	Z (3RD) AXIS MOVE POSITIVE LIMIT OF TRAVEL	00000000000
023	C (4TH) AXIS MOVE NEGATIVE LIMIT OF TRAVEL	-2147483648
024	C (4TH) AXIS MOVE POSITIVE LIMIT OF TRAVEL	02147483647
025	S (5TH) AXIS MOVE NEGATIVE LIMIT OF TRAVEL	-2147483648
026	S (5TH) AXIS MOVE POSITIVE LIMIT OF TRAVEL	02147483647
027	X (1ST) AXIS HOME SWITCH OFFSET	00000000000
028	Y (2ND) AXIS HOME SWITCH OFFSET	00000000000
029	Z (3RD) AXIS HOME SWITCH OFFSET	00000600000
030	C (4TH) AXIS HOME SWITCH OFFSET	00000000000
031	S (5TH) AXIS HOME SWITCH OFFSET	00000000000
032	X (1ST) AXIS ENCODER RESOLUTION	00000000050
033	Y (2ND) AXIS ENCODER RESOLUTION	00000000100
034	Z (3RD) AXIS ENCODER RESOLUTION	00000000050
035	C (4TH) AXIS ENCODER RESOLUTION	00000000600
036	S (5TH) AXIS ENCODER RESOLUTION	00000000072
037	JOGKNOB ENCODER RESOLUTION	00000000600
038	"HOMING SEQUENCE" PRM CTRLS "FIND HOME" ROUTINE	00178926640
039	DEAD-BAND (NULL ZONE) FOR JOY-STICKS	00000000080
040	SCALE FACTOR FOR JOY-STICKS	00000000256
041	UNUSED	00000000144
042	UNUSED	00000000144

PRM	DESCRIPTION	VALUE
043	UNUSED	00000000144
044	UNUSED	00000000144
045	UNUSED	00000000000
046	UNUSED	00000000000
047	UNUSED	00000000000
048	UNUSED	00000000000
049	UNUSED	00000000000
050	IN-POSITION TOLERANCE	00000007620
051	MAXIMUM FOLLOWING ERROR	00000300000
052	FOLLOWING ERROR LIMIT	00000060000
053	MAXIMUM SPINDLE SLIP	00000000240
054	SPINDLE SLIP LIMIT	00000000080
055	X (1ST) AXIS BACKLASH	00000000200
056	Y (2ND) AXIS BACKLASH	00000000000
057	Z (3RD) AXIS BACKLASH	00000000700
058	C (4TH) AXIS BACKLASH	00000000000
059	S (5TH) AXIS BACKLASH	00000000000
060	X (1ST) AXIS VELOCITY GAIN	00000000310
061	Y (2ND) AXIS VELOCITY GAIN	00000000000
062	Z (3RD) AXIS VELOCITY GAIN	00000000232
063	C (4TH) AXIS VELOCITY GAIN	00000000000
064	S (5TH) AXIS VELOCITY GAIN	00000000000
065	X (1ST) AXIS SERVO GAIN	00000000007
066	Y (2ND) AXIS SERVO GAIN	00000000008
067	Z (3RD) AXIS SERVO GAIN	00000000007
068	C (4TH) AXIS SERVO GAIN	00000000000
069	S (5TH) AXIS SERVO GAIN	00000000000
070	SPINDLE VELOCITY SAMPLE PERIOD	00000000047
071	SPINDLE COMMAND GAIN	00000029082
072	SPINDLE-MOTOR MINIMUM RPM	00000000040
073	SPINDLE-MOTOR MAXIMUM RPM	00000004000
074	SPINDLE-RANGE #1 MAXIMUM RPM	00000001500
075	SPINDLE-RANGE #2 MAXIMUM RPM	00000002000
076	SPINDLE-RANGE #3 MAXIMUM RPM	00000000000
077	SPINDLE-RANGE #4 MAXIMUM RPM	00000000000
078	SPINDLE-RANGE #5 MAXIMUM RPM	00000000000
079	SPINDLE-RANGE #6 MAXIMUM RPM	00000000000
080	SPINDLE-RANGE #7 MAXIMUM RPM	00000000000
081	SPINDLE-RANGE #8 MAXIMUM RPM	00000000000
082	SPINDLE ANALOGIC-FEEDBACK GAIN	00000000000
083	LUB PUMP INTERVAL	00000000800
084	LUB PUMP DURATION	00000000000
085	X AXIS CLEARENCE POINT	00000000000

REL.	MODIFICATION	MODIF.	APROV.	DATE
B	SEE NOTE REL H AT PAGE 50 A	FRANCISCO	BAPTISTA	11/16/1999

DESCRIPTION: EZ-IISD V1 CNC PARAMETERS - OPT

DESIGNED	ROGERIO	9/21/1998	PROJECTION
DRAWER	ROGERIO	9/21/1998	SIZE A3
CONTROLLED	GERALDO	9/21/1998	

REFERENCE	SHEET	SCALE	APPLICATION	N°
	471 / 1+	1:1	EZPATH-IISD V1.0	R88780 B

PRM	DESCRIPTION	VALUE
086	Y CLEARANCE POINTE	00000000000
087	X CENTER-OF-ROTATION FOR ROTARY AXIS	00000000000
088	Y CENTER-OF-ROTATION FOR ROTARY AXIS	00000000000
089	Z CENTER-OF-ROTATION FOR ROTARY AXIS	00000000000
090	TOOL-CHANGER NUMBER OF TOOLS	00000000000
091	TOOL-CHANGER CONFIGURATION	00000000000
092	TOOL-CAHNGER ORIENT POSITION	00000000000
093	TOOL-CAHNGER Z-AXIS OFFSET	-01016000000
094	JOGGING FEEDRATE	00000066717
095	SPARE (UNASSIGNED) PARAMETER	00000000000
096	SPARE (UNASSIGNED) PARAMETER	00000000000
097	TIME-OUT FOR PLC PARAMETER	00000000000
098	MASTER PARAMETER	00891551744
099	X (1ST) AXIS HOME POSITION	00000000000
100	Y (2ND) AXIS HOME POSITION	00000000000
101	Z (3RD) AXIS HOME POSITION	00000000000
102	C (4TH) AXIS HOME POSITION	00000000000
103	S (5TH) AXIS HOME POSITION	00000000000
104	TOOL-CHANGE CLEARANCE	00000000000
105	X (1ST) AXIS LEADSCREW COMPENSATION	00000000000
106	Y (2ND) AXIS LEADSCREW COMPENSATION	00000000000
107	Z (3RD) AXIS LEADSCREW COMPENSATION	00000000000
108	C (4TH) AXIS LEADSCREW COMPENSATION	00000000000
109	SPINDLE HORSEPOWER LIMIT - POWER	00000001792
110	SPINDLE HORSEPOWER LIMIT - SPPED	00000001500
111	SPINDLE CURRENT SENSE GAIN	00000000450
112	AXIS RUN-AWAY TEST VELOCITY DIFFERENCE	00000000050
113	AXIS RUN-AWAY TEST HYSTERESIS	00000000200
114	X AXIS DEFFERENTIAL FOLLOWING ERROR GAIN	00000000050
115	Y AXIS DEFFERENTIAL FOLLOWING ERROR GAIN	00000000000
116	Z AXIS DEFFERENTIAL FOLLOWING ERROR GAIN	00000000050
117	W AXIS DEFFERENTIAL FOLLOWING ERROR GAIN	00000000000
118	S AXIS DEFFERENTIAL FOLLOWING ERROR GAIN	00000000000
119	X AXIS FOLLOWING ERROR GAIN	00000000020
120	Y AXIS FOLLOWING ERROR GAIN	00000000000
121	Z AXIS FOLLOWING ERROR GAIN	00000000020
122	W AXIS FOLLOWING ERROR GAIN	00000000000
123	S AXIS FOLLOWING ERROR GAIN	00000000000
124	MAXIMUM X AXIS PWM DEVIATION	00000000280
125	MAXIMUM Y AXIS PWM DEVIATION	00000000280
126	MAXIMUM Z AXIS PWM DEVIATION	00000000280
127	MAXIMUM W AXIS PWM DEVIATION	00000000340
128	MAXIMUM S AXIS PWM DEVIATION	00000000000

PRM	DESCRIPTION	VALUE
129	X AXIS MOTOR VOLTS PER 1000 RPM	00000000031
130	Y AXIS MOTOR VOLTS PER 1000 RPM	00000000031
131	Z AXIS MOTOR VOLTS PER 1000 RPM	00000000031
132	W AXIS MOTOR VOLTS PER 1000 RPM	00000000031
133	S AXIS MOTOR VOLTS PER 1000 RPM	00000000028
134	X AXIS ENCODER LINES PER MOTOR REVOLUTION	00000002000
135	Y AXIS ENCODER LINES PER MOTOR REVOLUTION	00000002000
136	Z AXIS ENCODER LINES PER MOTOR REVOLUTION	00000003000
137	W AXIS ENCODER LINES PER MOTOR REVOLUTION	00000000100
138	S AXIS ENCODER LINES PER MOTOR REVOLUTION	00000001024
139	BUS VOLTAGE FOR PWM AMPLIFIER	00000000130
140	PWM OFFSET FOR X,Y,Z,W AXIS	00000000001
141	PWM AMP LOAD INTEGRATOR LIMIT	00000065536
142	FILTER K FOR DIGITAL FILTER	00000000005
143	FILTER K FOR DIGITAL FILTER	00000000015
144	FILTER K FOR DIGITAL FILTER	00000000000
145	FILTER K FOR DIGITAL FILTER	00000000000
146	X-AXIS LEAD-COMP INTERVAL	00000000000
147	Y-AXIS LEAD-COMP INTERVAL	00000000000
148	Z-AXIS LEAD-COMP INTERVAL	00000000000
149	W-AXIS LEAD-COMP INTERVAL	00000000000
150	MACHINE FAULTS BYTE	00000000000
151	AXIS LIMIT BYTE	00000000000
152	AUXILIARY LIMITS BYTE	00000000000
153	DRIVE FULTS BYTE	00000000000
154	MACHINE STATUS BYTE	00000000001
155	HOME SWITCH STATUS BYTE	00000000005
156	MACHINE OPTIONS STATUS BYTE	00000000000
157	USER STATUS BYTE	00000000000
158	SWITCH STATUS BYTE #1	00000000000
159	SWITCH STATUS BYTE #2	00000000000
160	MACHINE COMMAND BYTE #1	00000000069
161	MACHINE OPTIONS COMMAND BYTE	00000000000
162	USER COMMAND BITS REGISTER	00000000000
163	SPINDLE COMMAND BYTE	00000016386
164	SPINDLE STATUS BYTE	00000000032
165	COMMANDED SPINDLE SPPED (RPM)	00000000050
166	TOOL CHANGER #1 COMMAND REGISTER	00000000000
167	TOOL CHANGER STATUS	-00000000128
168	TOOL CHANGER CONTROL REGISTER	00000000000
169	DESIRED CURRENT TOOL POSITION	00000000000
170	CURRENT TOOL CARROUSEL POSITION	00000000000
171	INPUTS TO TLAUF	00000000000

REL	MODIFICATION	MODIF.	APROV.	DATE
B	SEE NOTE REL H AT PAGE 88 A	FRANCISCO	BAPTISTA	11/16/1999

DESCRIPTION: EZ-IISD V1 CNC PARAMETERS - OPT

DESIGNED	ROGERIO	9/21/1998	PROJECTION
DRAWER	ROGERIO	9/21/1998	SIZE A3
CONTROLLED	GERALDO	9/21/1998	

REFERENCE	SHEET	SCALE	APPLICATION	N°R88780 B
	471 / 2+	1:1	EZPATH-IISD V1.0	

PRM	DESCRIPTION	VALUE
172	TL1AUF OUTPUT COMMAND REGISTER (FOR TEST USE)	00000000000
173	DESIRED NOVRAM ADDRESS	00000000000
174	DATA TO BE WRITTEN INTO NOVRAM	00000000000
175	NOVRAM ADDRESS	00000000000
176	REGISTER USED BY AUFDRVR TO ACCESS NOVRAM	00000000000
177	NOVRAM BYTE 00	00000000000
178	NOVRAM BYTE 01	00000000000
179	NOVRAM BYTE 02	00000000000
180	NOVRAM BYTE 03	00000000000
181	NOVRAM BYTE 04	00000000000
182	NOVRAM BYTE 05	00000000000
183	NOVRAM BYTE 06	00000000000
184	NOVRAM BYTE 07	00000000000
185	NOVRAM BYTE 08	00000000000
186	NOVRAM BYTE 09	00000000000
187	NOVRAM BYTE 10	00000000000
188	NOVRAM BYTE 11	00000000000
189	NOVRAM BYTE 12	00000000000
190	NOVRAM BYTE 13	00000000000
191	NOVRAM BYTE 14	00000000000
192	NOVRAM BYTE 15	00000000000
193	TOOL CHANGER #2 COMMAND REGISTER	00000000000
194	TOOL CHANGER #2 STATUS	00000000100
195	TOOL CHANGER #2 CONTROL REGISTER	00000000100
196	DESIRED CURRENT TOOL POSITION	00000000100
197	CURRENT TOOL CARROUSEL POSITION	00000000000
198	INPUTS TO TLAUF	00000000000
199	TL2AUF OUTPUT COMMAND REGISTER (FOR TEST USE)	00000000000
200	DESIRED NOVRAM ADDRESS	00000000000
201	DATA TO BE WRITTEN INTO NOVRAM	00000000000
202	NOVRAM ADDRESS	00000000001
203	REGISTER USED BY AUFDRVR TO ACCESS NOVRAM	00000145077
204	NOVRAM BYTE 00	00000000500
205	NOVRAM BYTE 01	00000000600
206	NOVRAM BYTE 02	00000000500
207	NOVRAM BYTE 03	00000001000
208	NOVRAM BYTE 04	00000001023
209	NOVRAM BYTE 05	00000000000
210	NOVRAM BYTE 06	00000000000
211	NOVRAM BYTE 07	00000000000
212	NOVRAM BYTE 08	00000000000

PRM	DESCRIPTION	VALUE
213	NOVRAM BYTE 09	00000000000
214	NOVRAM BYTE 10	00000000000
215	NOVRAM BYTE 11	00000000000
216	NOVRAM BYTE 12	00000000000
217	NOVRAM BYTE 13	00000000000
218	NOVRAM BYTE 14	00000000000
219	NOVRAM BYTE 15	00000000000
220	FEEDRATE OVERRIDE (%)	00000001600
221	SPINDLE SPEED POT.	00000000000
222	X AXIS JOYSTICK	00000000029
223	Y AXIS JOYSTICK	00000000029
224	Z AXIS JOYSTICK	00000000029
225	W AXIS JOYSTICK	00000000000
226	S AXIS JOYSTICK	00000000000

REL.	MODIFICATION	MODIF.	APROV.	DATE
B	SEE NOTE REL. H AT PAGE 50 A	FRANCISCO	BAPTISTA	11/16/1999

DESCRIPTION	EZ-IISD V1 CNC PARAMETERS - OPT			
	DESIGNED	ROGERIO	9/21/1998	PROJECTION
	DRAWER	ROGERIO	9/21/1998	SIZE A3
	CONTROLLED	GERALDO	9/21/1998	

REFERENCE	SHEET	SCALE	APPLICATION	N°R88780 B
	471 / 3+	1:1	EZPATH-IISD V1.0	

ATTENTION:

IF IT IS NECESSARY TO DOWNLOAD OR REENTER ANY PARAMETER SETTING, USE THE DISKETTE IDENTIFIED WITH THE SAME ROMI PART NUMBER OF THIS SHEET. THE DISKETTE MAY BE FOUND IN THE MACHINE LOG BOOK, INSIDE THE ELECTRICAL CABINET.

NOTES:

1. THE STATUS PARAMETERS ARE USUALLY CHANGING THEIR ACTUAL SETTING, BECAUSE THEY HOLD THE ACTUAL MACHINE STATUS;
2. THE PARAMETERS 55 AND 57 HAVE DIFFERENT SETPOINT FROM ONE MACHINE TO ANOTHER. THE CORRECT SETPOINT CAN BE FOUND IN THE MACHINE LOG BOOK IN THE CABINET
3. PARAMETER 208. THIS PARAMETER MUST BE ACCESSED THROUGH PFM IN ORDER TO CONFIGURE THE MACHINE OPTIONS. THIS ACTION IS ALWAYS TAKEN WHEN FIRST INSTALLING THE MACHINE OR WHEN AN OPTIONAL DEVICE IS INSTALLED.

   FUNCTIONS:

TURRET
BAR FEEDER
CHUCK
TAILSTOCK
AUTO GEAR CHANGE
HYDRAULICS
AIR TURRET
POWERDEX

   SELECT THE DESIRED OPTION AND PRESS <ENTER>.

REL.	MODIFICATION	MODIF.	APROV.	DATE
B	SEE NOTE 'REL. H' AT PAGE 50 A	FRANCISCO	BAPTISTA	11/16/1999

DESCRIPTION	EZ-IISD V1 CNC PARAMETERS - OPT			
	DESIGNED	ROGERIO	9/21/1998	PROJECTION / SIZE
	DRAWER	ROGERIO	9/21/1998	A3
	CONTROLLED	GERALDO	9/21/1998	
REFERENCE	SHEET 471 / 4-	SCALE 1:1	APPLICATION EZPATH-IISD V1.0	N°R88780 B

1- ELECTRICAL CABINET :

EN60204-1	ELECTRICAL EQUIPMENT OF MACHINES
EN60529	PROTECTION OF ENCLOSURES
EN50081-2	EMC - EMISSION (INDUSTRY)
EN50082-2	EMC - IMMUNITY (INDUSTRY)

2- ELECTRICAL INSTALATION :

EN60204-1	ELECTRICAL EQUIPMENT OF MACHINES
DIN40011	GROUNDING
DIN501	ELECTRICAL INSTALATION
EN50081-2	EMC - EMISSION (INDUSTRY)
EN50082-2	EMC - IMMUNITY (INDUSTRY)
VDE0113	CABLE COLORS : POWER - BLACK AC CONTROL - RED DC CONTROL - BLUE

3- SAFETY SYSTEMS

EN60204-1	ELECTRICAL EQUIPMENT OF MACHINES
prEN954-1	RISK ASSESSMENT
EN1088	INTERLOCK DEVICES W/WO GUARD LOCKING

4- ELECTRICAL DRAWINGS :

DIN7	GRAPHICS
DIN34	COPYRIGHT
DIN107	ELECTRICAL DIAGRAMS
IEC417	SYMBOLIC EXPRESSIONS
ISO7000	SYMBOLIC EXPRESSIONS

REL.	MODIFICATION	MODIF.	APROV.	DATE

REL.	MODIFICATION	MODIF.	APROV.	DATE

DESCRIPTION	REFERENCE INT. CODES		
	DESIGNED	BRANDAO	24-06-97
	DRAWER	BRANDAO	24-06-97
	CONTROLLED	POLONI	25-06-97

REFERENCE	SHEET	SCALE	APPLICATION	PROJECTION	SIZE
	48A/1-	1:1	EZPATH IISD V1.0		A3

N° R78539 A

OR

RELEASE NUMBER	SUBJECT	DESCRIPTION
H	ELECTRIC DIAGRAMS EZPATH-S V3.0 DX-32R	THE TOPICS BELLOW WERE REVIEWED: - CONTROL AC AND DC POWER: - SPINDLE DRIVE I/O AND POWER: - CNC: - X AND Z AXIS DRIVES - CNC - CONTROL PANEL - REMOTE CONTROL PANEL - EMERGENCY STOP - WORK LIGHT - GENERAL CONNECTIONS - LUBE PUMP - COOLANT PUMP - PNEUMATIC CHUCK - PNEUMATIC TAILSTOCK - CHIP CONVEYOR - ELECTRICAL TURRET 8 POSITIONS - BAR FEEDER - INPUT MAP - OUTPUT MAP - ELECTRICAL CABINET LAYOUT - OPERATOR PANEL LAYOUT - MACHINE LATHE LAYOUT - FUNCTION/DESCRIPTION OF PARTS - PARAMETERS - EZ-ISD V1 CNC PARAMETERS - OPT - EZ-IISD V1 CNC PARAMETERS - OPT - RELEASE NOTES
D	CONTROL AC AND DC POWER.	SHEET 1A/1+ : - ALTERED THE IDENTIFICATIONS OF THE EZPATH MACHINES : FROM: EZPATH-I S TO: EZPATH-I SD FROM: EZPATH-II S TO: EZPATH-II SD SHEET 1A/2+ : - ALTERED THE INCOMING POWER ACCORDING TO SEVERAL OPTIONS MODIFIED THE VOLTAGE FOR IT PHASE: OR

REL	MODIFICATION	MODIF.	APROV.	DATE
N	SEE NOTE 'REL. N' AT PAGE 50 A	MARCIO	ROGÉRIO	07/05/01
M	SEE NOTE 'REL. M' AT PAGE 50 A	MARCIO	BATISTA	02/04/01
L	SEE NOTE 'REL. L' AT PAGE 50 A	MARCIO	BAPTISTA	27/09/00
K	SEE NOTE 'REL. K' AT PAGE 50 A	ROGÉRIO	GERALDO	17/05/00
J	SEE NOTE 'REL. H' AT PAGE 50 A	MONTOYA	BAPTISTA	09/02/2000
H	SEE NOTE 'REL. H' AT PAGE 50 A	FRANCISCO	BAPTISTA	11/11/1999
G	SEE NOTE 'REL. G' AT PAGE 50 A	BATISTA	GERALDO	15/06/1999

REL	MODIFICATION	MODIF.	APROV.	DATE
F	SEE NOTE 'REL.F' AT PAGE 50A	ROGERIO	GERALDO	11/10/98
E	SEE NOTE 'REL.E' AT PAGE 50A	ROGERIO	GERALDO	9/11/98
D	SEE NOTE 'REL.D' AT PAGE 50A	PABLO	GERALDO	6/10/98
C	SEE NOTE 'REL.C' AT PAGE 50A	PABLO	SILVIO	28/01/98
B	SEE NOTE 'REL.B' AT PAGE 50A	PABLO	SILVIO	06/11/97

DESCRIPTION	RELEASE NOTES				
	DESIGNED	PABLO	09/04/1997	PROJECTION	SIZE
	DRAWER	PABLO	09/04/1997		A3
	CONTROLLED	GERALDO	09/05/1997		
REFERENCE	SHEET: 50A / 1+	SCALE: 1:1	APPLICATION: EZPATH-SD V1.0	N°R78540 N	

RELEASE NUMBER	SUBJECT	DESCRIPTION
		FROM: 230V TO: 220/230V CREATED COORDINATES FOR WIRES SHEET 1A/3+ : - CREATED TO THE NOTES ONLY THE SHEET 1A/2+ SHEET 1A/4- : - MODIFIED THE VOLTAGE FOR IT PHASE: FROM: 230V TO: 220/230V - CREATED COORDINATES FOR WIRES - ADDED THE DESCRIPTION TO THE ELECTRICAL CABINET TERMINAL BLOCKS X1 AND X2
E	SPINDLE DRIVE I/O AND POWER	SHEET 2A/1+ : - MODIFIED THE VOLTAGE FOR IT PHASE: FROM: 230V TO: 220/230V - ADDED DESCRIPTION TO THE ANALOGIC SPINDLE CABLE (W23) - CREATED COORDINATES FOR WIRES - CREATED COORDINATES FOR COMPONENTS SHEET 2A/2+ : - MODIFIED THE VOLTAGE FOR IT PHASE: FROM: 230V TO: 220/230V - CREATED COORDINATES FOR WIRES - CORRECTED THE COORDINATES OF THE COMPONENTS - ADDED DESCRIPTION TO THE BLOWER SPINDLE CABLE (W25) - ADDED DESCRIPTION TO THE DISCHARGE RESISTOR UNIT FAN MASTER CABLE (W28) - ADDED DESCRIPTION TO THE MOTOR SPARK KILLERS (F2 AND F3) - ADDED DESCRIPTION TO THE SOLENOID SPARK KILLERS (F21. F22. F23) SHEET 2A/3+ : - ADDED DESCRIPTION TO THE DISCHARGE RESISTOR UNIT FAN MASTER CABLE W28 SHEET 2A/4+ : - CHANGED THE CR-2 AND CR-3 RELAY CONNECTIONS AND THEN CR-1 SHEET 2A/5- : - CORRECTED THE COORDINATES OF REFERENCE
E	SPINDLE DRIVE I/O AND POWER	SHEET 2B/1+ : - MODIFIED THE VOLTAGE FOR IT PHASE: FROM: 230V TO: 220/230V - ADDED DESCRIPTION TO THE ANALOGIC SPINDLE CABLE (W25) - CREATED COORDINATES FOR WIRES - CREATED COORDINATES FOR COMPONENTS

OR

REL.	MODIFICATION	MODIF.	APROV.	DATE
N	SEE NOTE 'REL. N' AT PAGE 50 A	MARCIO	ROGÉRIO	07/05/01
M	SEE NOTE 'REL. M' AT PAGE 50 A	MARCIO	BATISTA	02/04/01
L	SEE NOTE 'REL. L' AT PAGE 50 A	MARCIO	BAPTISTA	27/09/00
K	SEE NOTE 'REL. K' AT PAGE 50 A	ROGÉRIO	GERALDO	17/05/00
J	SEE NOTE REL. H' AT PAGE 50 A	MONTOYA	BAPTISTA	09/02/2000
H	SEE NOTE 'REL. H' AT PAGE 50 A	FRANCISCO	BAPTISTA	11/11/1999
G	SEE NOTE 'REL. G' AT PAGE 50 A	BATISTA	GERALDO	16/06/1999

REL.	MODIFICATION	MODIF.	APROV.	DATE
F	SEE NOTE 'REL.F' AT PAGE 50A	ROGERIO	GERALDO	11/10/98
E	SEE NOTE 'REL.E' AT PAGE 50A	ROGERIO	GERALDO	9/11/98
D	SEE NOTE 'REL.D' AT PAGE 50A	PABLO	GERALDO	6/18/98
C	SEE NOTE 'REL.C' AT PAGE 50A	PABLO	SILVIO	28/01/98
B	SEE NOTE 'REL.B' AT PAGE 50A	PABLO	SILVIO	06/11/97

DESCRIPTION	RELEASE NOTES			
	DESIGNED	PABLO	09/04/1997	PROJECTION
	DRAWER	PABLO	09/04/1997	SIZE A3
	CONTROLLED	GERALDO	09/05/1997	
REFERENCE	SHEET 50A / 2+	SCALE 1:1	APPLICATION EZPATH-SD V1.0	N°R78540 N

RELEASE NUMBER	SUBJECT	DESCRIPTION
		SHEET 2B/2+ : - MODIFIED THE VOLTAGE FOR IT PHASE: FROM: 230V TO: 220/230V - CREATED COORDINATES FOR WIRES - CORRECTED THE COORDINATES OF THE COMPONENTS - ADDED DESCRIPTION TO THE BLOWER SPINDLE CABLE (W23) - ADDED DESCRIPTION TO THE DISCHARGE RESISTOR UNIT FAN MASTER CABLE (W28) - ADDED DESCRIPTION TO THE DISCHARGE RESISTOR UNIT FAN SLAVE CABLE (W29) - ADDED DESCRIPTION TO THE MOTOR SPARK KILLER (F2 AND F3) - ADDED DESCRIPTION TO THE SOLENOID SPARK KILLERS (F21, F22, F23) SHEET 2B/3+ : - ADDED DESCRIPTION TO THE DISCHARGE RESISTOR UNIT FAN MASTER CABLE W28 AND SLAVE (W29) SHEET 2B/4+ : - CHANGED THE CR-2 AND CR-3 RELAY CONNECTIONS AND THEN CR-1 SHEET 2B/5- : - CORRECTED THE COORDINATES OF REFERENCE
C	X AND Z AXIS DRIVES	SHEET 3A/1+ : - MODIFIED THE VOLTAGE FOR IT PHASE: FROM: 230V TO: 220/230V - CREATED COORDINATES FOR WIRES - ADDED THE DESCRIPTION TO THE 1CN(A2 AND A3) CONNECTOR CABLE (W30) - CORRECTED THE COORDINATES OF REFERENCE - ADDED THE DESCRIPTION TO THE S1 MICRO CABLE (W31) SHEET 3A/2- : - MODIFIED THE VOLTAGE FOR IT PHASE: FROM: 230V TO: 220/230V - CREATED COORDINATES FOR WIRES - ADDED THE DESCRIPTION TO THE 1CN(A2 AND A3) CONNECTOR CABLE (W30) - CORRECTED THE COORDINATES OF REFERENCE - ADDED THE DESCRIPTION TO THE S2 MICRO CABLE (W32)
C	CNC	SHEET 4A/1+ : - CREATED COORDINATES FOR WIRES - ADDED THE DESCRIPTION TO THE VGA MONITOR CABLE (W16) - ADDED THE VOLTAGE (OUTPUT) IN THE CRT POWER SUPPLY SHEET 4A/2+ : - CHANGED THE POSITION OF THE I/O SWITHES UNDER THE FIGURE SHEET 4A/3- : - ADDED THE DESCRIPTION TO THE VGA MONITOR CABLE (PART OF W16)

REL	MODIFICATION	MODIF.	APROV.	DATE
N	SEE NOTE 'REL. N' AT PAGE 50 A	MARCIO	ROGÉRIO	07/05/01
M	SEE NOTE 'REL. M' AT PAGE 50 A	MARCIO	BATISTA	02/04/01
L	SEE NOTE 'REL. L' AT PAGE 50 A	MARCIO	BAPTISTA	27/09/00
K	SEE NOTE 'REL. K' AT PAGE 50 A	ROGÉRIO	GERALDO	17/05/00
J	SEE NOTE 'REL. H' AT PAGE 50 A	MONTOYA	BAPTISTA	09/02/2000
H	SEE NOTE 'REL. H' AT PAGE 50 A	FRANCISCO	BAPTISTA	11/11/1999
G	SEE NOTE 'REL. G' AT PAGE 50 A	BATISTA	GERALDO	15/06/1999

REL	MODIFICATION	MODIF.	APROV.	DATE
F	SEE NOTE 'REL.F' AT PAGE 50A	ROGERIO	GERALDO	11/10/98
E	SEE NOTE 'REL.E' AT PAGE 50A	ROGERIO	GERALDO	9/11/98
D	SEE NOTE 'REL.D' AT PAGE 50A	PABLO	GERALDO	6/10/98
C	SEE NOTE 'REL.C' AT PAGE 50A	PABLO	SILVIO	28/01/98
B	SEE NOTE 'REL.B' AT PAGE 50A	PABLO	SILVIO	05/11/97

OR

DESCRIPTION	RELEASE NOTES				
	DESIGNED	PABLO	09/04/1997	PROJECTION	SIZE
	DRAWER	PABLO	09/04/1997		A3
	CONTROLLED	GERALDO	09/05/1997		
REFERENCE	SHEET 50A / 3+	SCALE 1:1	APPLICATION EZPATH-SD V1.0	N°R78540 N	

RELEASE NUMBER	SUBJECT	DESCRIPTION
B	CONTROL PANEL	SHEET 5A/1-: - ADDED THE DESCRIPTION TO THE CONTROL PANEL CABLE (W33) - CORRETED THE COORDINATES OF REFERENCE
E	REMOTE CONTROL PANEL	SHEET 6A/1+: - ADDED THE DESCRIPTION TO THE REMOTE CONTROL CABLE (W18) SHEET 6A/2+: - ADDED THE DESCRIPTION TO THE REMOTE CONTROL CABLE (W18) - CORRECTED THE COORDINATES OF REFERENCE - CHANGED THE LAMPS DESCRIPTION: FROM: L3 TO: L6 FROM: L4 TO: L7 - ADDED PART OF CONEXP (N2) TO THE CONNECTION WITH THE INDEX TURRET PUSHBUTTON SHEET 6A/3-: -
B	EMERGENCY STOP	SHEET 7A/1-: - ADDED THE DESCRIPTION TO THE CONTROL PANEL CABLE AND REMOTE CONTROL PANEL CABLE - ALTERED THE DESCRIPTION OF THE DIOD SPARK KILLER (D) TO D2 - ALTERED THE NR-1, MOL. Z AXIS DRIVE FAULT AND SPINDLE DRIVE FAULT (COORDINATES)
D	WORK LIGHT	SHEET 8A/1-: - MODIFIED THE VOLTAGE FOR IT PHASE: FROM: 230V TO: 220/230V - CREATED COORDINATES FOR WIRES - CHANGED THE REACTOR AND LIGHTS CONNECTIONS - CREATED THE DESCRIPTION TO THE LAMP (L3) - ADDED THE DESCRIPTION TO THE PE - X3 CABLE
B	WORK LIGHT	SHEET 8B/1-: - CREATED COORDINATES FOR WIRES - CHANGED THE REACTOR AND LIGHTS CONNECTIONS - ADDED THE DESCRIPTION TO THE PE - X3 CABLE
A	WORK LIGHT	SHEET 8C/1-: - NEW SUBJECT ADDED TO THE SCHEMATIC
	WORK LIGHT	SHEET 8D/1-: - NEW SUBJECT ADDED TO THE SCHEMATIC

OR

REL	MODIFICATION	MODIF.	APROV.	DATE
N	SEE NOTE 'REL. N' AT PAGE 50 A	MARCIO	ROGÉRIO	07/05/01
M	SEE NOTE 'REL. M' AT PAGE 50 A	MARCIO	BATISTA	02/04/01
L	SEE NOTE 'REL. L' AT PAGE 50 A	MARCIO	BAPTISTA	27/09/00
K	SEE NOTE 'REL. K' AT PAGE 50 A	ROGÉRIO	GERALDO	17/05/00
J	SEE NOTE REL. H AT PAGE 50 A	HONTOYA	BAPTISTA	09/02/2000
H	SEE NOTE REL. H AT PAGE 50 A	FRANCISCO	BAPTISTA	11/11/1999
G	SEE NOTE REL. G AT PAGE 50 A	BATISTA	GERALDO	16/06/1999

REL	MODIFICATION	MODIF.	APROV.	DATE
F	SEE NOTE 'REL.F' AT PAGE 50A	ROGERIO	GERALDO	11/10/98
E	SEE NOTE 'REL.E' AT PAGE 50A	ROGERIO	GERALDO	9/11/98
D	SEE NOTE 'REL.D' AT PAGE 50A	PABLO	GERALDO	6/18/98
C	SEE NOTE 'REL.C' AT PAGE 50A	PABLO	SILVIO	28/01/98
B	SEE NOTE 'REL.B' AT PAGE 50A	PABLO	SILVIO	06/11/97

DESCRIPTION: RELEASE NOTES

DESIGNED	PABLO	09/04/1997	PROJECTION: SIZE A3
DRAWER	PABLO	09/04/1997	
CONTROLLED	GERALDO	09/05/1997	

REFERENCE	SHEET	SCALE	APPLICATION	N°R78540 N
	50A / 4+	1:1	EZPATH-SD V1.0	

RELEASE NUMBER	SUBJECT	DESCRIPTION
C	GENERAL CONNECTIONS	SHEET 9A/1-: - MODIFIED THE VOLTAGE FOR IT PHASE: FROM: 230V TO: 220/230V - CREATED COORDINATES FOR WIRES. - ALTERED THE CONNECTIONS OF THE ELECTRICAL CABINET TERMINAL BLOCK: FROM: X1/2 AND X1/4 TO: X1/1 AND X1/3 - ADDED THE DESCRIPTION TO THE MOTOR SPARK KILLER (F5)
B	LUBE PUMP	SHEET 10A/1-: - CREATED COORDINATES FOR WIRES - ADDED THE DESCRIPTION TO THE LUBE PUMP MOTOR CABLE (W36) - ADDED THE DESCRIPTION TO THE LUBE PRESSURE SWITCH CABLE (W37)
B	COOLANT PUMP	SHEET 11A/1-: - MODIFIED THE VOLTAGE FOR IT PHASE: FROM: 230V TO: 220/230V - CREATED COORDINATES FOR WIRES - ALTERED THE IDENTICATION OF THE DIOD SPARK KILLER (D) TO D2 - ALTERED THE IDENTICATION OF THE MOTOR SPARK KILLER (F3) TO F6 - ADDED THE DESCRIPTION TO THE COOLANT PUMP MOTOR CABLE(W38)
D	PNEUMATIC CHUCK	SHEET 13A/1+: - ADDED THE DESCRIPTION TO THE CHUCK AND TAILSTOCK FOOTSWITCHES CABLE (W39) - ADDED THE DESCRIPTION TO THE PNEUMATIC CHUCK CABLE (W40) USED TO CLAMP OR UNCLAMP (PNEUMATIC CHUCK) - CREATED THE COORDINATES OF COMPONENTS SHEET 13A/2-: - ADDED THE DESCRIPTION TO THE PNEUM. CHUCK SENSOR CABLE (W41) - THE CN2-C14 HAD THE GND SPECIFICATION AND NOW THE VOLTAGE (0V)
B	PNEUMATIC TAILSTOCK	SHEET 14A/1-: - ADDED THE DESCRIPTION TO THE CHUCK AND TAILSTOCK FOOTSWITCHES CABLE (W39) - ADDED THE DESCRIPTION TO THE PNEUMATIC TAILSTOCK PRESSURE SWITCH CABLE (W42)
B	CHIP CONVEYOR	SHEET 15A/1-: - ADDED THE DESCRIPTION TO THE CHIP CONVEYOR CABLE (W43) - MODIFIED THE VOLTAGE FOR IT PHASE: FROM: 230V TO: 220/230V - CREATED COORDINATES FOR WIRES

OR

REL.	MODIFICATION	MODIF.	APROV.	DATE
N	SEE NOTE 'REL. N' AT PAGE 50 A	MARCIO	ROGÉRIO	07/05/01
M	SEE NOTE 'REL. M' AT PAGE 50 A	MARCIO	BATISTA	02/04/01
L	SEE NOTE 'REL. L' AT PAGE 50 A	MARCIO	BAPTISTA	27/09/00
K	SEE NOTE 'REL. K' AT PAGE 50 A	ROGÉRIO	GERALDO	17/05/00
J	SEE NOTE 'REL. H' AT PAGE 50 A	MONTOYA	BAPTISTA	09/02/2000
H	SEE NOTE 'REL. H' AT PAGE 50 A	FRANCISCO	BAPTISTA	11/11/1999
G	SEE NOTE 'REL. G' AT PAGE 50 A	BATISTA	GERALDO	16/06/1999

REL.	MODIFICATION	MODIF.	APROV.	DATE
F	SEE NOTE 'REL.F' AT PAGE 50A	ROGERIO	GERALDO	11/10/98
E	SEE NOTE 'REL.E' AT PAGE 50A	ROGERIO	GERALDO	9/11/98
D	SEE NOTE 'REL.D' AT PAGE 50A	PABLO	GERALDO	6/18/98
C	SEE NOTE 'REL.C' AT PAGE 50A	PABLO	SILVIO	28/01/98
B	SEE NOTE 'REL.B' AT PAGE 50A	PABLO	SILVIO	06/11/97

DESCRIPTION	RELEASE NOTES				
	DESIGNED	PABLO	09/04/1997	PROJECTION	SIZE
	DRAWER	PABLO	09/04/1997		A3
	CONTROLLED	GERALDO	09/05/1997		

REFERENCE	SHEET	SCALE	APPLICATION	N°R78540 N
	50A / 5+	1:1	EZPATH-SD V1.0	

RELEASE NUMBER	SUBJECT	DESCRIPTION
B	ELECTRICAL TURRET 8 POSITIONS	SHEET 18A/1+: - MODIFIED THE VOLTAGE FOR IT PHASE: FROM: 230V TO: 220/230V - CREATED COORDINATES FOR WIRES - ALTERED THE OUTPUTS OF THE CONEXP CARD BELLOW: FROM: CN3-B37 TO: CN3-B23 FROM: CN3-A37 TO: CN3-A23 FROM: CN3-B38 TO: CN3-B24 FROM: CN3-A38 TO: CN3-A24 - ALTERED THE IDENTIFICATION OF THE DIODS SPARK KILLER (D) TO D3 AND D4 - ALTERED THE IDENTIFICATION OF THE MOTOR SPARK KILLER (F) TO F7 SHEET 18A/2+: - ADDED THE DESCRIPTION TO THE 8 POSITIONS TURRET CABLE (W44) SHEET 18A/3-: - ADDED THE DESCRIPTION TO THE 8 POSITIONS TURRET CABLE (W44) - ALTERED THE IDENTIFICATION OF THE DIODS SPARK KILLER (D) TO D5 AND D6
C	BAR FEEDER	SHEET 20A/1-: - MODIFIED THE VOLTAGE FOR IT PHASE: FROM: 230V TO: 220/230V - CREATED COORDINATES FOR WIRES - CREATED COORDINATES FOR WIRES - ADDED THE DESCRIPTION TO THE BAR FEEDER POWER CABLE (W24) - ADDED THE DESCRIPTION TO THE BAR FEEDER CABLE (W45)
E	INPUT MAP	SHEET 40A/1-: - ALTERED THE A37 ADDRESS INPUT TO INDEX TURRET PUSHBUTTON - CANCELLED THE ADDRESS INPUT A38
C	OUTPUT MAP	SHEET 41A/1-: - ALTERED THE A23 ADDRESS OUTPUT TO TURRET CW - ALTERED THE A24 ADDRESS OUTPUT TO TURRET CCW
D	ELECTRICAL CABINET LAYOUT	SHEET 42A/1+: - INCLUDED THE SECURITY INSTRUTION TABLES (REPRESENTATIVE) - INCLUDED THE INCLINATION INDICATOR LABEL (B17) - ADDED THE DESCRIPTION TO THE SUBSEQUENTS ITENS: DANGER ADHESIVE LABEL (B14) WARNING SAFT ADHESIVE LABEL (B22) DOCUMENTS HOLDER (B21) AND LOG BOOK BINDER (B20) ORANGE TRIANGLE LABEL (REPRESENTATIVE)

OR

REL.	MODIFICATION	MODIF.	APROV.	DATE
N	SEE NOTE 'REL. N' AT PAGE 50 A	MARCIO	ROGÉRIO	07/05/01
M	SEE NOTE 'REL. M' AT PAGE 50 A	MARCIO	BATISTA	02/04/01
L	SEE NOTE 'REL. L' AT PAGE 50 A	MARCIO	BAPTISTA	27/09/00
K	SEE NOTE 'REL. K' AT PAGE 50 A	ROGÉRIO	GERALDO	17/05/00
J	SEE NOTE 'REL. H' AT PAGE 50 A	MONTOYA	BAPTISTA	09/02/2000
H	SEE NOTE 'REL. H' AT PAGE 50 A	FRANCISCO	BAPTISTA	11/11/1999
G	SEE NOTE 'REL. G' AT PAGE 50 A	BATISTA	GERALDO	16/06/1999

REL.	MODIFICATION	MODIF.	APROV.	DATE
F	SEE NOTE 'REL.F' AT PAGE 50A	ROGERIO	GERALDO	11/10/98
E	SEE NOTE 'REL.E' AT PAGE 50A	ROGERIO	GERALDO	9/11/98
D	SEE NOTE 'REL.D' AT PAGE 50A	PABLO	GERALDO	6/18/98
C	SEE NOTE 'REL.C' AT PAGE 50A	PABLO	SILVIO	28/01/98
B	SEE NOTE 'REL.B' AT PAGE 50A	PABLO	SILVIO	06/11/97

DESCRIPTION	RELEASE NOTES			
	DESIGNED	PABLO	09/04/1997	PROJECTION
	DRAWER	PABLO	09/04/1997	SIZE A3
	CONTROLLED	GERALDO	09/05/1997	
REFERENCE	SHEET 50A / 6+	SCALE 1:1	APPLICATION EZPATH-SD V1.0	N°R78540 N

RELEASE NUMBER	SUBJECT	DESCRIPTION
		SHEET 42A/2+: - ALTERED THE IDENTIFICATION OF MACHINE : FROM: EZPATH-II TO: EZPATH-II SD
		SHEET 42A/3-: - ALTERED THE IDENTIFICATION OF MACHINE : FROM: EZPATH-I TO: EZPATH-I SD
B	OPERATOR PANEL LAYOUT	SHEET 43A/1-: - CHANGED THE ADHESIVE LABEL (220V) TO 110V
C	MACHINE LATHE LAYOUT	SHEET 45A/1-: - ADDED THE IDENTIFICATION TO THE SUBSEQUENTS ITENS: REACTOR (N10) LAMPS (L3, L4 AND L5) PLUGS (J15 AND J16)
G	FUNCTION/DESCRIPTION OF PARTS	SHEET 46A/1+: - INCLUDED THE SUBSEQUENTS ITENS: ORANGE TRIANGLE LABEL (B9) 110V ADHESIVE LABEL (B13) DANGER ADHESIVE LABEL (B14) COM1 ADHESIVE LABEL (B15) SERIAL DANGER ADHESIVE (1) LABEL (B16) INCLINATION INDICATOR LABEL (B17) LOG BOOK BINDER (B20) DOCUMENTS HOLDER (B21) WARNING SAFT ADHESIVE LABEL (B22) - THE SUBSEQUENTS ITENS WERE ALTERED THE SUPPLIER CODES AND SUPPLIERS : ALL THE RELAYS WERE ALTERED, EXCEPT THE CR-12 RELAY ALL THE TEMPERATURE INDICATOR STICKER (B1-B5) - THE IDENTIFICATION WERE ANNOTATED TO THE ITEM : GROUND SIGNAL STICKER (B8) SHEET 46A/2+: - THE SUBSEQUENTS ITENS WERE INCLUDED : RELAY SPINDLE SPEED ZERO (CR-12) SPARK KILLERS (F21, F22 AND F23) TO THE CONTACTS K1, K6 AND K7 - THE SUBSEQUENTS ITENS WERE ALTERED : THE DIODS (D) WILL BE IDENTIFICATED BY ORDER OF NUMBERS (D1-D6)

OR

REL.	MODIFICATION	MODIF.	APROV.	DATE
N	SEE NOTE 'REL. N' AT PAGE 50 A	MARCIO	ROGÉRIO	07/05/01
M	SEE NOTE 'REL. M' AT PAGE 50 A	MARCIO	BATISTA	02/04/01
L	SEE NOTE 'REL. L' AT PAGE 50 A	MARCIO	BAPTISTA	27/09/00
K	SEE NOTE 'REL. K' AT PAGE 50 A	ROGÉRIO	GERALDO	17/05/00
J	SEE NOTE 'REL. H' AT PAGE 50 A	MONTOYA	BAPTISTA	09/02/2000
H	SEE NOTE 'REL. H' AT PAGE 50 A	FRANCISCO	BAPTISTA	11/11/1999
G	SEE NOTE 'REL. G' AT PAGE 50 A	BATISTA	GERALDO	16/06/1999

REL.	MODIFICATION	MODIF.	APROV.	DATE
F	SEE NOTE 'REL.F' AT PAGE 50A	ROGERIO	GERALDO	11/10/98
E	SEE NOTE 'REL.E' AT PAGE 50A	ROGERIO	GERALDO	9/11/98
D	SEE NOTE 'REL.D' AT PAGE 50A	PABLO	GERALDO	6/18/98
C	SEE NOTE 'REL.C' AT PAGE 50A	PABLO	SILVIO	28/01/98
B	SEE NOTE 'REL.B' AT PAGE 50A	PABLO	SILVIO	06/11/97

DESCRIPTION	RELEASE NOTES					
	DESIGNED	PABLO	09/04/1997	PROJECTION	SIZE	
	DRAWER	PABLO	09/04/1997		A3	
	CONTROLLED	GERALDO	09/05/1997			
REFERENCE	SHEET 50A / 7+	SCALE 1:1	APPLICATION EZPATH-SD V1.0	N°R78540 N		

RELEASE NUMBER	SUBJECT	DESCRIPTION
		SHEET 46A/2+: - THE SUBSEQUENTS ITENS WERE INCLUDED : RELAY SPINDLE SPEED ZERO (CR-12) SPARK KILLERS (F21, F22 AND F23) TO THE CONTACTS K1, K6 AND K7 - THE SUBSEQUENTS ITENS WERE ALTERED : THE DIODS (D) WILL BE IDENTIFICATED BY ORDER OF NUMBERS (D1-D6) - THE SUBSEQUENTS ITENS WERE ALTERED THE SUPPLIER CODES AND SUPPLIERS : THE G4 AND G5 AXIS MANUAL ENCODERS THE G1 SPINDLE ENCODER ALL THE DIOD SPARK KILLERS ALL THE SPARK KILLERS CONNECTED AT MOTOR TERMINAL (F2-F9) ALL THE SOLENOID SPARK KILLERS (F10-F20) SHEET 46A/3+: - THE SUBSEQUENTS ITENS WERE ALTERED THE SUPPLIER CODES AND SUPPLIERS : CONNECTOR FOR SPINDLE ENCODER (J5) CONNECTOR FOR X AXIS ENCODER HANDWHEEL (J6) CONNECTOR FOR Z AXIS ENCODER HANDWHEEL (J7) CONNECTOR FOR BAR FEEDER (J18) CONNECTOR FOR COOLANT PUMP (J19) CONNECTOR OPERATOR'S PANEL (J20) CONNECTOR OPERATOR'S REMOTE CONTROL (J20) SHEET 46A/4+: - THE SUBSEQUENT ITEM WERE ALTERED THE SUPPLIER CODE AND SUPPLIER : X AXIS MOTOR (SEPARETED IN TWO ITENS: MOTOR + SAILING) - THE SUBSEQUENT ITEM WERE INCLUDED : TURRET MOTOR SHEET 46A/5+: - THE SUBSEQUENTS ITENS WERE ALTERED THE SUPPLIER CODES AND SUPPLIERS : Z AXIS MOTOR (SEPARETED IN TWO ITENS: MOTOR + SAILING) CRT MODULE ELECTRIC CABINET FAN MOTOR

OR

REL	MODIFICATION	MODIF.	APROV.	DATE
N	SEE NOTE 'REL. N' AT PAGE 50 A	MARCIO	ROGÉRIO	07/05/01
M	SEE NOTE 'REL. M' AT PAGE 50 A	MARCIO	BATISTA	02/04/01
L	SEE NOTE 'REL. L' AT PAGE 50 A	MARCIO	BAPTISTA	27/09/00
K	SEE NOTE 'REL. K' AT PAGE 50 A	ROGÉRIO	GERALDO	17/05/00
J	SEE NOTE 'REL. H' AT PAGE 50 A	MONTOYA	BAPTISTA	09/02/2000
H	SEE NOTE 'REL. H' AT PAGE 50 A	FRANCISCO	BAPTISTA	11/01/1999
G	SEE NOTE 'REL. G' AT PAGE 50 A	BATISTA	GERALDO	16/05/1999

REL	MODIFICATION	MODIF.	APROV.	DATE
F	SEE NOTE 'REL.F' AT PAGE 50A	ROGERIO	GERALDO	11/10/98
E	SEE NOTE 'REL.E' AT PAGE 50A	ROGERIO	GERALDO	9/10/98
D	SEE NOTE 'REL.D' AT PAGE 50A	PABLO	GERALDO	6/10/98
C	SEE NOTE 'REL.C' AT PAGE 50A	PABLO	SILVIO	28/09/98
B	SEE NOTE 'REL.B' AT PAGE 50A	PABLO	SILVIO	06/11/97

DESCRIPTION	RELEASE NOTES				
	DESIGNED	PABLO	09/04/1997	PROJECTION	SIZE
	DRAWER	PABLO	09/04/1997		A3
	CONTROLLED	GERALDO	09/05/1997		
REFERENCE	SHEET 50A / 8+	SCALE 1:1	APPLICATION EZPATH-SD V1.0	N°R78540 N	

RELEASE NUMBER	SUBJECT	DESCRIPTION
		SHEET 46A/6+: - THE SUBSEQUENTS ITENS WERE ALTERED THE SUPPLIER CODES AND SUPPLIERS : MASTER DYNAMIC CONTROL UNIT (NR-1) SLAVE DYNAMIC CONTROL UNIT (NR-2) PULL-UP RESISTOR FDD SIGNAL CABLE (R1) DOOR GUARD AND INTERLOCK (S9) JOG BUTTOM OF OPERATOR'S PANEL (S20) SHEET 46A/7+: - THE SUBSEQUENTS ITENS WERE ALTERED THE SUPPLIER CODES AND SUPPLIERS : SAFETY RELAY 24V ALL THE CABLES (W1 UNTIL W16) SHEET 46A/8-: - THE SUBSEQUENTS ITENS WERE ALTERED THE SUPPLIER CODES AND SUPPLIERS : ALL THE CABLES (W17 UNTIL W46) - THE SUBSEQUENTS ITENS WERE INCLUDED: FROM THE W19 UNTIL W25 FROM THE W28 UNTIL W46 **** NOTE : INCLUDED OPTIONAL ITENS AT SHEETS 2. 3. 4. 5. 6 AND 7 ****
E	PARAMETERS	SHEET 47A/1+: - TEXT CORRECTIONS SHEET 47A/2-: - TEXT CORRECTIONS
B	EZ-ISD V1 CNC PARAMETERS - OPT	SHEET 47H/1+: - SHEET 47H/2+: - SHEET 47H/3+: - SHEET 47H/4-: - ADDED INFORMATIONS ABOUT PARAMETERS TO THE OPTIONS CONFIGURATION (CNC) OF THE EZ-ISD V1.0 MACHINE
B	EZ-IISD V1 CNC PARAMETERS - OPT	SHEET 47I/1+: - SHEET 47I/2+: - SHEET 47I/3+: - SHEET 47I/4-: - ADDED INFORMATIONS ABOUT PARAMETERS TO THE OPTIONS CONFIGURATION (CNC) OF THE EZ-IISD V1.0 MACHINE
H	RELEASE NOTES	ADDED RELEASE H NOTES

OR

REL.	MODIFICATION	MODIF.	APROV.	DATE
N	SEE NOTE 'REL. N' AT PAGE 50 A	MARCIO	ROGÉRIO	07/05/01
M	SEE NOTE 'REL. M' AT PAGE 50 A	MARCIO	BATISTA	02/04/01
L	SEE NOTE 'REL. L' AT PAGE 50 A	MARCIO	BAPTISTA	27/09/00
K	SEE NOTE 'REL. K' AT PAGE 50 A	ROGÉRIO	GERALDO	17/05/00
J	SEE NOTE 'REL. H' AT PAGE 50 A	MONTOYA	BAPTISTA	09/02/2000
H	SEE NOTE 'REL. H' AT PAGE 50 A	FRANCISCO	BAPTISTA	11/11/1999
G	SEE NOTE 'REL. G' AT PAGE 50 A	BATISTA	GERALDO	16/06/1998

REL.	MODIFICATION	MODIF.	APROV.	DATE
F	SEE NOTE 'REL.F' AT PAGE 50A	ROGERIO	GERALDO	11/10/98
E	SEE NOTE 'REL.E' AT PAGE 50A	ROGERIO	GERALDO	9/11/98
D	SEE NOTE 'REL.D' AT PAGE 50A	PABLO	GERALDO	6/10/98
C	SEE NOTE 'REL.C' AT PAGE 50A	PABLO	SILVIO	28/01/98
B	SEE NOTE 'REL.B' AT PAGE 50A	PABLO	SILVIO	06/11/97

DESCRIPTION	RELEASE NOTES				
	DESIGNED	PABLO	09/04/1997	PROJECTION	SIZE
	DRAWER	PABLO	09/04/1997		A3
	CONTROLLED	GERALDO	09/05/1997		
REFERENCE	SHEET 50A / 9+	SCALE 1:1	APPLICATION EZPATH-SD V1.0	N°R78540 N	

J	ELECTRIC DIAGRAMS EZPATH-S V3.0 DX-32R	THE TOPICS BELLOW WERE REVIEWED: - CNC - FUNCTION/DESCRIPTION OF PARTS - RELEASE NOTES
	CNC	SHEET 4A/1+: - SHEET 4A/2+: - SHEET 4A/3-: - ADDED THE DESCRIPTION TO THE WAYTEC MONITOR CABLE (W50) AND WAYTEC MONITOR POWER SUPPLY CABLE (W51) - ADDED THE DESCRIPTION TO THE WAYTEC MONITOR (N5) - ADDED THE DESCRIPTION TO THE ELECTRICAL CABINET TERMINAL BLOCK BLOCK X1/5, X1/7 AND X1/GND.
	FUNCTION/DESCRIPTION OF PARTS	SHEET 46A/1+: - SHEET 46A/2+: - SHEET 46A/3+: - SHEET 46A/4+: - SHEET 46A/5+: - SUBSTITUTED THE MONITOR SUPPLIER AND SUPPLIER CODE THAT WILL BE DELIVERED BY WAYTEC (FROM: R70753 TO: R81528) SHEET 46A/6+: SHEET 46A/7+: SHEET 46A/8-: - ADDED THE WAYTEC MONITOR CABLE (W50) AND WAYTEC MONITOR POWER SUPPLY CABLE (W51)
	RELEASE NOTES	ADDED RELEASE 'J' NOTES
K	ELECTRIC DIAGRAMS EZPATH-S V3.0 DX-32R	THE TOPICS BELLOW WERE REVIEWED: - LUBE PUMP - RELEASE NOTES
	CNC	SHEET 10A/1-: - CHANGED THE 110VAC LUBE PUMP POWER TO 220VAC
	RELEASE NOTES	ADDED RELEASE K NOTES

OR

REL.	MODIFICATION	MODIF.	APROV.	DATE
N	SEE NOTE 'REL. N' AT PAGE 50 A	MARCIO	ROGÉRIO	07/05/01
M	SEE NOTE 'REL. M' AT PAGE 50 A	MARCIO	BATISTA	02/04/01
L	SEE NOTE 'REL. L' AT PAGE 50 A	MARCIO	BAPTISTA	27/09/00
K	SEE NOTE 'REL. K' AT PAGE 50 A	ROGÉRIO	GERALDO	17/05/00
J	SEE NOTE 'REL. H' AT PAGE 50 A	MONTOYA	BAPTISTA	09/02/2000
H	SEE NOTE 'REL. H' AT PAGE 50 A	FRANCISCO	BAPTISTA	11/11/1999
G	SEE NOTE 'REL. G' AT PAGE 50 A	BATISTA	GERALDO	15/06/1999

REL.	MODIFICATION	MODIF.	APROV.	DATE
F	SEE NOTE 'REL.F' AT PAGE 50A	ROGERIO	GERALDO	11/10/98
E	SEE NOTE 'REL.E' AT PAGE 50A	ROGERIO	GERALDO	9/11/98
D	SEE NOTE 'REL.D' AT PAGE 50A	PABLO	GERALDO	6/10/98
C	SEE NOTE 'REL.C' AT PAGE 50A	PABLO	SILVIO	28/01/98
B	SEE NOTE 'REL.B' AT PAGE 50A	PABLO	SILVIO	06/11/97

DESCRIPTION	RELEASE NOTES				
	DESIGNED	PABLO	09/04/1997	PROJECTION	SIZE
	DRAWER	PABLO	09/04/1997		A3
	CONTROLLED	GERALDO	09/05/1997		
REFERENCE	SHEET: 50A / 10+	SCALE: 1:1	APPLICATION: EZPATH-SD V1.0	N°R78540 N	

L	ELECTRIC DIAGRAMS EZPATH-S V1.0 DX-32R	THE TOPICS BELLOW WERE REVIEWED: - SPINDLE DRIVE I/O AND POWER
	SPINDLE DRIVE I/O AND POWER	SHEET 2A/1+: - THE G1 ENCODER CONNECTIONS WERE WXCHANGE FRON J5-4 AND J5-3 TO J5-3 AND J5-4 RESPECTIVETY SHEET 2A/2+: - SHEET 2A/3+: - SHEET 2A/4+: - SHEET 2A/5-: -
		SHEET 2B/1+: - THE G1 ENCODER CONNECTIONS WERE WXCHANGE FRON J5-4 AND J5-3 TO J5-3 AND J5-4 RESPECTIVETY SHEET 2B/2+: - SHEET 2B/3+: - SHEET 2B/4+: - SHEET 2B/5-: -
M	ELECTRIC DIAGRAMS EZPATH-S V1.0 DX-32R	THE TOPICS BELLOW WERE REVIEWED: - SPINDLE DRIVE I/O AND POWER - ELECTRICAL CABINET LAYOUT - FUNCTION/DESCRIPTION OF PARTS
	SPINDLE DRIVE I/O AND POWER	SHEET 2A/1+: - F24, F25, F26, COMPONENTS WERE INCLUDED - (FERRITE TOROIDAL) SHEET 2A/2+: - SHEET 2A/3+: - SHEET 2A/4+: - SHEET 2A/5-: -
		SHEET 2B/1+: - F24, F25, F26, COMPONENTS WERE INCLUDED - (FERRITE TOROIDAL) SHEET 2B/2+: - SHEET 2B/3+: - SHEET 2B/4+: - SHEET 2B/5-: -

OR

REL	MODIFICATION	MODIF.	APROV.	DATE
N	SEE NOTE 'REL. N' AT PAGE 50 A	MARCIO	ROGÉRIO	07/05/01
M	SEE NOTE 'REL. M' AT PAGE 50 A	MARCIO	BATISTA	02/04/01
L	SEE NOTE 'REL. L' AT PAGE 50 A	MARCIO	BATISTA	27/09/00
K	SEE NOTE 'REL. K' AT PAGE 50 A	ROGÉRIO	GERALDO	17/05/00
J	SEE NOTE REL. H AT PAGE 50 A	MONTOYA	BAPTISTA	09/02/2000
H	SEE NOTE REL. H AT PAGE 50 A	FRANCISCO	BAPTISTA	11/11/1999
G	SEE NOTE REL. G AT PAGE 50 A	BATISTA	GERALDO	15/06/1999

REL	MODIFICATION	MODIF.	APROV	DATE
F	SEE NOTE 'REL.F' AT PAGE 50A	ROGERIO	GERALDO	11/10/98
E	SEE NOTE 'REL.E' AT PAGE 50A	ROGERIO	GERALDO	9/10/98
D	SEE NOTE 'REL.D' AT PAGE 50A	PABLO	GERALDO	6/08/98
C	SEE NOTE 'REL.C' AT PAGE 50A	PABLO	SILVIO	28/01/98
B	SEE NOTE 'REL.B' AT PAGE 50A	PABLO	SILVIO	05/11/97

DESCRIPTION	RELEASE NOTES				
	DESIGNED	PABLO	09/04/1997	PROJECTION	SIZE
	DRAWER	PABLO	09/04/1997		A3
	CONTROLLED	GERALDO	09/05/1997		
REFERENCE	SHEET: 50A / 11+	SCALE: 1:1	APPLICATION: EZPATH-SD V1.0	N°R78540 N	

	ELECTRICAL CABINET LAYOUT	SHEET 42A/1+: - SHEET 42A/2+: - F24, F25, F26, COMPONENTS WERE INCLUDED - (FERRITE TOROIDAL). SHEET 42A/3-: - F24, F25, F26, COMPONENTS WERE INCLUDED - (FERRITE TOROIDAL).
	FUNCTION/DESCRIPTION OF PARTS	SHEET 46A/1+: - SHEET 46A/2+: - F24, F25, F26, COMPONENTS WERE INCLUDED - (FERRITE TOROIDAL) SHEET 46A/3+: - SHEET 46A/4+: - SHEET 46A/5+: - SHEET 46A/6+: - SHEET 46A/7+: - SHEET 46A/8+: - SHEET 46A/9-: -
N	ELECTRIC DIAGRAMS EZPATH-S V1.0 DX-32R	THE TOPICS BELLOW WERE REVIEWED: - GENERAL CONNECTIONS
	SPINDLE DRIVE I/O AND POWER	SHEET 9A/1-: - JUMPER BETWEEN N2.CN2-A38 AND N2.CN2-B38 WAS INCLUDED.

OR

REL	MODIFICATION	MODIF.	APROV.	DATE
N	SEE NOTE 'REL. N' AT PAGE 50 A	MARCIO	ROGÉRIO	07/05/01
M	SEE NOTE 'REL. M' AT PAGE 50 A	MARCIO	BATISTA	02/04/01
L	SEE NOTE 'REL. L' AT PAGE 50 A	MARCIO	BATISTA	27/09/00
K	SEE NOTE 'REL. K' AT PAGE 50 A	ROGÉRIO	GERALDO	17/05/00
J	SEE NOTE 'REL. H' AT PAGE 50 A	MONTOYA	BAPTISTA	09/02/2000
H	SEE NOTE 'REL. H' AT PAGE 50 A	FRANCISCO	BAPTISTA	11/11/1999
G	SEE NOTE 'REL. G' AT PAGE 50 A	BATISTA	GERALDO	15/06/1999

REL	MODIFICATION	MODIF.	APROV.	DATE
F	SEE NOTE 'REL.F' AT PAGE 50A	ROGERIO	GERALDO	11/10/98
E	SEE NOTE 'REL.E' AT PAGE 50A	ROGERIO	GERALDO	9/11/98
D	SEE NOTE 'REL.D' AT PAGE 50A	PABLO	GERALDO	6/18/98
C	SEE NOTE 'REL.C' AT PAGE 50A	PABLO	SILVIO	28/01/98
B	SEE NOTE 'REL.B' AT PAGE 50A	PABLO	SILVIO	06/11/97

DESCRIPTION	RELEASE NOTES		
	DESIGNED	PABLO	09/04/1997
	DRAWER	PABLO	09/04/1997
	CONTROLLED	GERALDO	09/05/1997
PROJECTION	SIZE		
	A3		
REFERENCE	SHEET	SCALE	APPLICATION
	50A / 12-	1:1	EZPATH-SD V1.0
N°R78540 N			