

MORI SEIKI CO., LTD

CODE.NO	608142
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CONTROL. NO	410
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N/C	MFNC-13
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RE-30002

劇本

2

ITEM	DISCRIPTION	SPECIFICATION	MAKER	SYMBOL	QUANT	REMARKS	ITEM	DISCRIPTION	SPECIFICATION	MAKER	SYMBOL	QUANT	REMARKS
1	CONTROL UNIT	A028-0072-B501	FANUC	NC	1	(HANC-23)	32	PRINTED CIRCUIT BOARD	RRC-1	RYOWA	RRC-1	1	
2	SERVOMOTOR UNIT	A06B-6047-H206	dō	UNIT 2	1	(SM 4)	33	DIODE	IR-10D2	YAMAH INTER	D	17	(P27-7A)
3	SPINDLE UNIT	A06B-6044-H032	dō	UNIT 1	1	(SP-3)	34	DIODE STACK	DS10BN-M	MITSUBISHI	DS1, DSS	2	
4	dō	A06B-6044-H021	dō	dō	1	(OPTION-6)	35	VARIABLE RESISTOR	HA-25W 100Ω	YAMAH RESISTOR	RVB	1	
5	SERVOMOTOR TRANS.	A80L-0001-0365-02	dō	T1	1	(ZOKTA)	36	ELECTRETIC CONDENSER	CE62W 470μF 50V	MARCON	C1, C5	2	
6	TRANS FORMER	SC-144 800VA	BRONER	T2	1		37	SPARK KILLER	953M5003-10411	MATSUOTO	SK22 ~29	8	SK26-29A
7	NO FUSE BREAKER	EA63/60QF F=AC100V	FUJIC	CBI	1	(COTER AI-33)	38	LAG BOARD	L-615-10P	SATO PARTS		1	
8	dō	NF-30CB 15A 3P	MITSUBISHI	NFB1	1		39	SPARK KILLER	S1B-0	OKAYA	SK16~21, 30, 31, 32, 33, 34	8	SK20, 21A
9	dō	NF-30CB 20A 3P	dō	NFB2	1		40	dō	SQ23150-37	NUSHIN	SK1~15	15	SK13~15A
10	dō	NF-30CB 5A 2P	dō	NFB3	1		41	TERMINALS BLOCK	TE-K60-4S	MITSUBISHI	TE7, 8	2	
11	CIRCUIT PROTECTOR	BA221105 (1A)	MATSUBISHI	NFG (1)	1	(NFI 1A 300V 1A)	42	dō	TE-K60-3S	dō	TE7	1	
12	dō	BA221705 (7A)	dō	NF2, 3	2		43	dō	TE-K2-12S	dō	TE1, 2, 3, 4, 5	10	
13	dō	BA151505 (5A)	dō	NF4	1		44	dō	TE-K2-9S	dō	TE6, 9	2	TE9A
14	FUSE BASE	AF2C-30	FUJIC	NFI~4, 6	5		45	dō	TE-K2-3S	dō	TE2, 3, 10	3	TE2A (PRE)
15	FUSE	BLA-003 (3A)	dō	NFI, 6	2	(E-H, 1A)	46	PRINTED CIRCUIT BOARD	YDE (M016)	RYOWA	YDE (M016)	1	YDE (M016)
16	dō	BLA-005 (5A)	dō	NF4	1	(P400V)	47	CONNECTOR	MR-50M01	HONDA	C113	2	C113 (HONDA)
17	dō	BLA-007 (7A)	dō	NF2, 3	2		48	dō	MR-50F01	dō	M1, M2, M3, C113, C114, C115	8	C113 (HONDA)
18	FUSE HOLDER	FHFC17	UTSUNOMIYA	NFI	1	(NFI 1A 300V)	49	dō	MR-20M01	dō	CH3, CA1	2	
19	FUSE	NC1-1A (1A)	dō	dō	1	(400V)	50	dō	MR-20F01	dō	M19, CA3	2	
20	MAGNETIC SWITCH	MSO-K11 TP3.6A AC100V	MITSUBISHI	MS2	1	(60L2)	51	CONNECTOR CASE	MR-50L	dō	M1, M2, M19, C113, C114, C115	6	
21	dō	MSO-K11 TP1.3A AC100V	dō	MS3	1	(60L3)	52	dō	MR-20L	dō	M19, CA3	4	
22	dō	MSO-K11 TP SETUZA AC100V	dō	MS7	1	(60L7)	53	METAL CONCENT	NCS-254 RF (AC-250V)	MANABASHI		1	MANABASHI
23	dō	MSO-KR11 TP2.1A AC100V	dō	MS8 F.8R	1	(60L8)	54	FAN	MUI238A-41B 5V60Hz	ORIENTAL	FAN1~5	5	
24	dō	MSO-KR11 TP2.1A AC100V	dō	MS4 F.4R	1	(60L4)	55	DOOR SWITCH	1EAP2	OMRON	DSW	1	
25	MAGNETIC CONTACTOR	S-K11 AC200V	dō	MSCON	1		56	KEY SELECT SWITCH	AH25-J2B10A	FUJIC	CSS	1	
26	OFF DELAY TIMER	DRS-F01~1.0SEC (PH-080A)	dō	TRCON	1		57	KEY SWITCH	TL-109-ZN	TOKIWA	KSW	1	
27	KEEP RELAY	MY-2K DC24V	OMRON	CRL1~4	4	(CRL1, 4 1A 200V)	58	SIGNAL LAMP	APS-126/46-W	IZUMI	WL	1	AC200V/400V
28	CONTROL RELAY	MY-2 DC24V	dō	CRL1, 2, 4, 6	8		59						
29	SOCKET	PTH-08A	dō	(PTH-08A)	8		60						
30	dō	PTH-14A	dō	(PTH-14A)	4		61						
31	SPRING	PHYC-A1	dō	(PHYC-A1)	12		62						

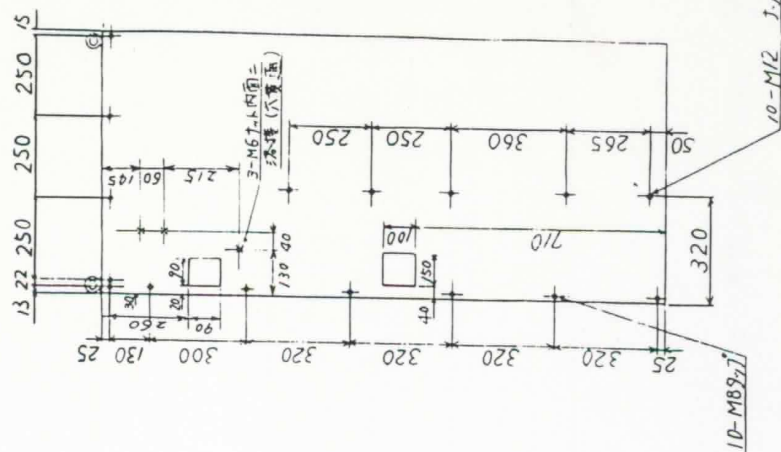
REVISION		DATE		BY		CHECKED		DESIGNED		APPROVED	
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CHANGE

PARTS LIST
部品表

RYOWA ELECTRIC CORPORATION
DRAWN: 13.31.85
CHECKED: 13.31.85
DESIGNED: 13.31.85
APPROVED: 13.31.85

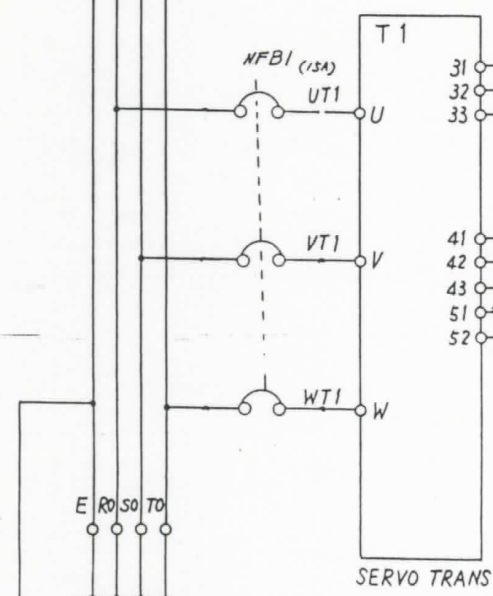
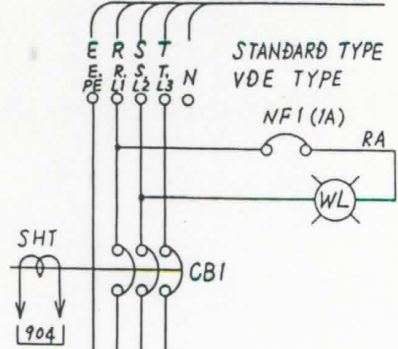
RE-300002 B 1



40	92-0 (MPL-3)	外 形 寸 法	RE-300002 B	2
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CHANGE IT

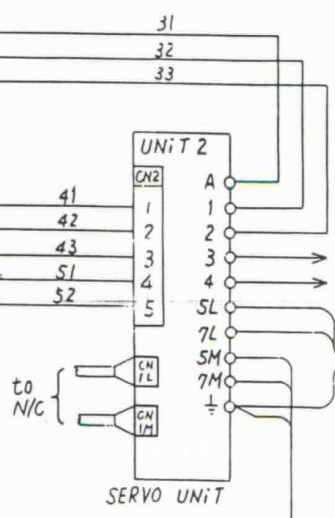
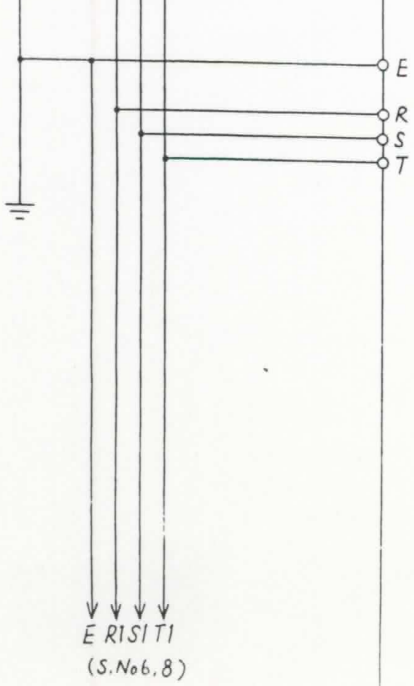
POWER SUPPLY



200V = R0-R1, S0-S1, T0-T1 SHORT
400V = TRANS FORMER CONNECTION



SPINDLE UNIT UNIT 1

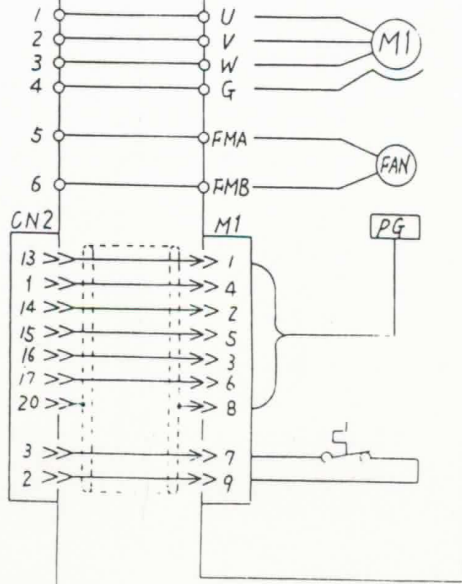


SERVO UNIT

X-AXIS MOTOR

Z-AXIS MOTOR

A.C SPINDLE MOTOR A.C 主轴电动机



RYOWA ELECTRIC CORPORATION	第3角法 PROJECTION	NO. 3 角法 PROJECTION
DRAWN	CHECKED	DESIGNED
APPROVED		

展開接続図
ELEMENTARY DIAGRAM

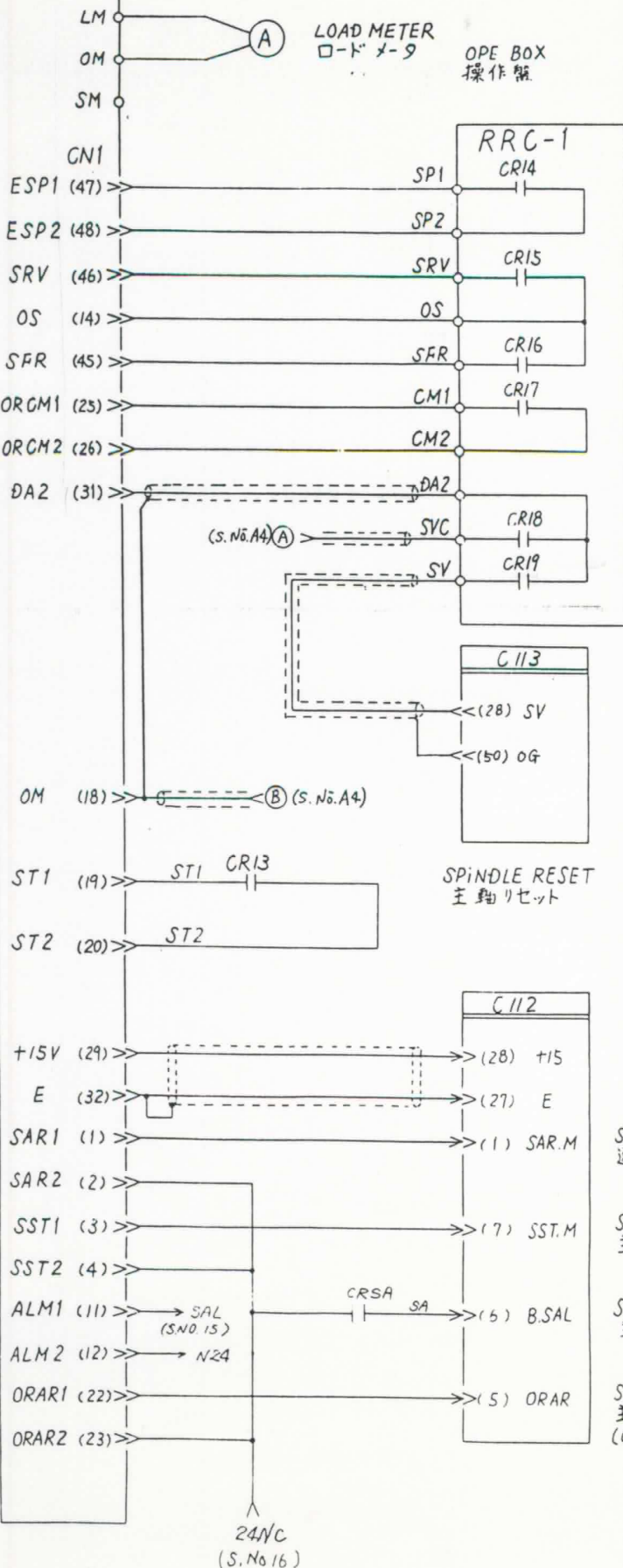
SL-O
(M7L3)

RE-300002B, 5

改 訂
CHANGE

A

UNIT 1



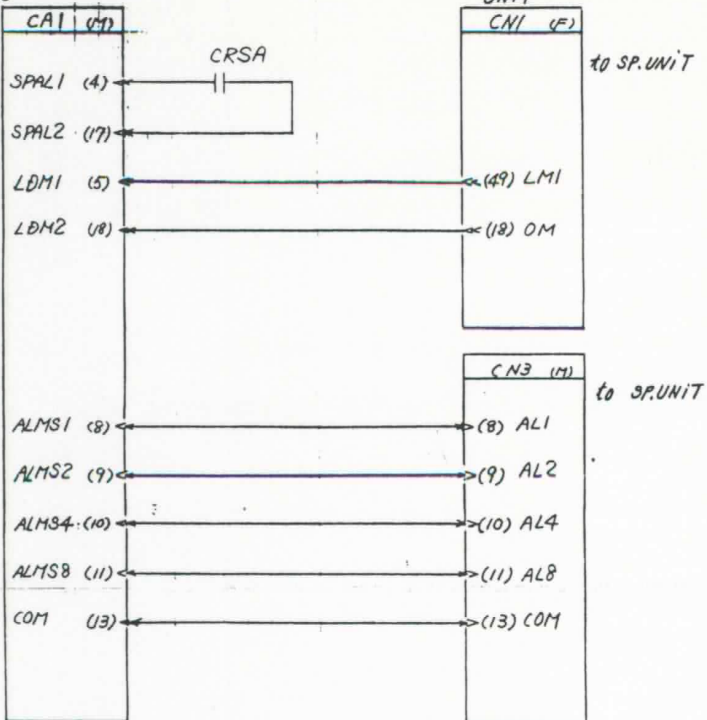
第3角法 PROJECTION	3rd ANGLE IN	縮尺 SCALE	作成日 DATE
1/1	mm	1:1	1983-6-1
作成 DRAWN	検閲 CHECKED	設計 DESIGNED	承認 APPROVED
RYOMA ELECTRIC CORPORATION			
展開接続図 ELEMENTARY DIAGRAM			
RE-300002B 1/6			
SLO (MFL3)			

改 訂
CHANGE

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TO M/C

SPINDL SERVO
UNIT



第3角法 3RD ANGLE PROJECTION	DIM IN mm	尺/英 SCALE IN MIS	作圖 DATE
RYOWA ELECTRIC CORPORATION			
作圖 DRAWN	檢圖 CHECKED	設計 DESIGNED	承認 APPROVED

展開接続図
ELEMENTARY DIAGRAM

SL-0
(M7-3)

RE-300002 B

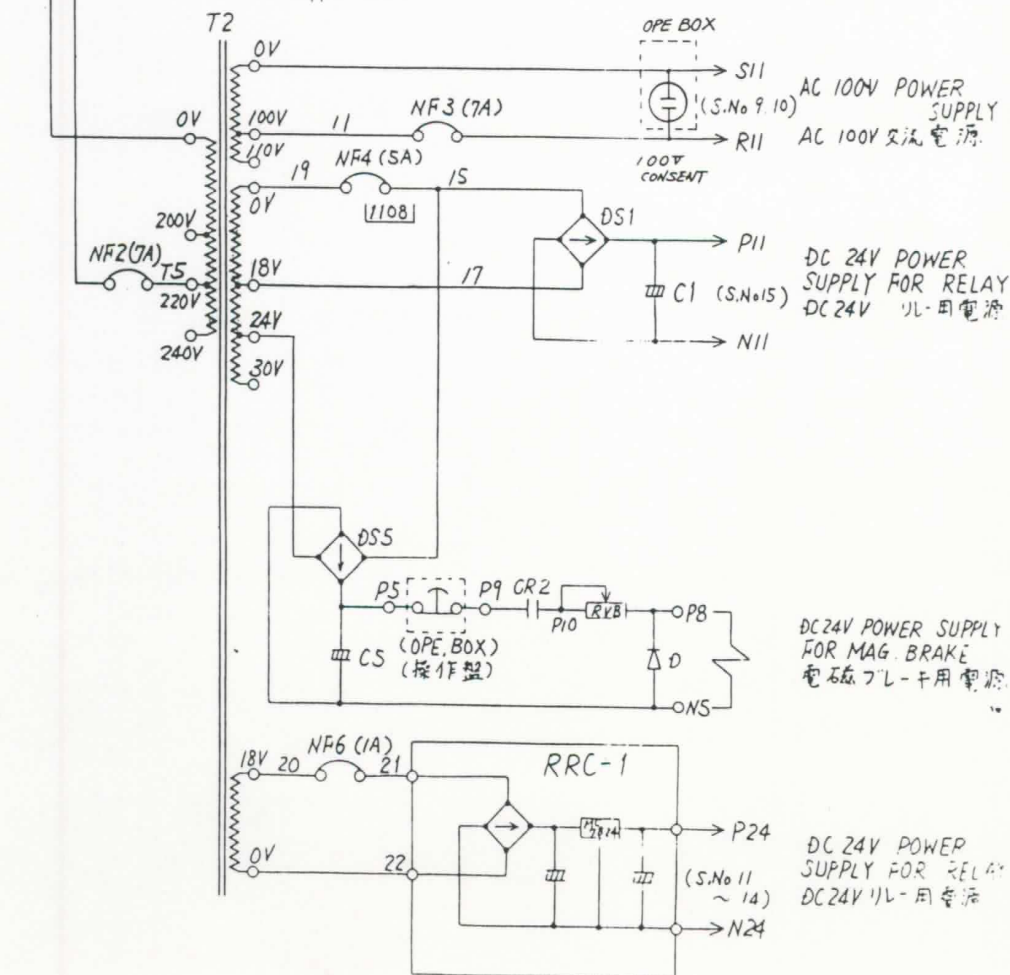
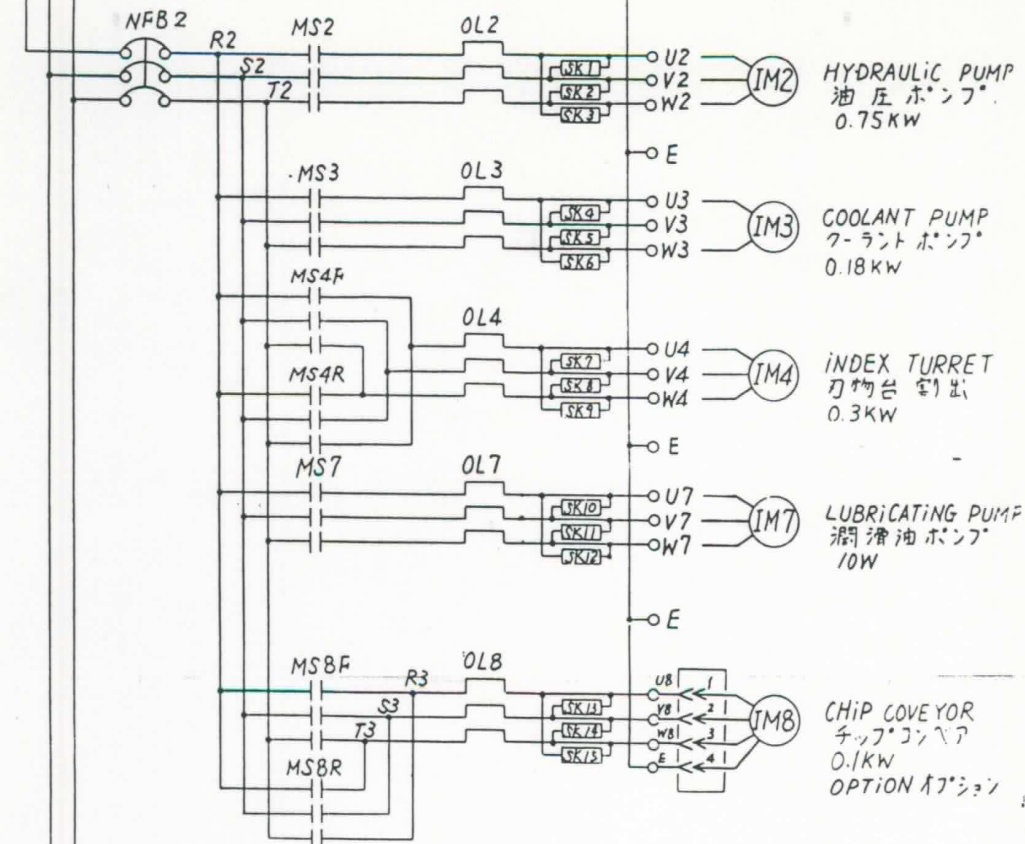
6A

改訂
CHANGE

A

(S.No 5)
R1 S1 T1

(S.No 5)
E



第3角法
PROJECTION
mm
DIM. FROM SCALE
作図日
DATE
R10WA ELECTRIC CORPORATION
DRAWN
CHECKED
DESIGNED
APPROVED

展開接続図

SL-0
(HFLS)

RE-300002B

8

改訂
CHANGE

(S.No8)

(S.No8)

R11 KSW 100A DSW 100 CB1 SHT

DOOR INTER LOCK ON OFF
ドアインターロック 有効 無効

OL2 101 MS2
SK16

HYDRAULIC PUMP
油圧ポンプ
1708 (1711) VDE

OL7 109 MS7
SK17

LUBRICATING PUMP
潤滑油ポンプ
1708 (1711) VDE

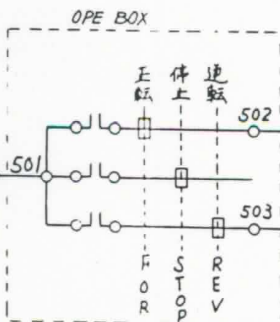
CR1 102 CR6 103 OL3 104 MS3
SK18

COOLANT PUMP
クーラントポンプ

CR7 105 CR4 MS4R 106B MS4F 106C MS4R 106A
SK19 SK20

INDEX TURRET MOTOR FORWARD
刃物台割出モータ 正転
917

INDEX TURRET MOTOR REVERSE
刃物台割出モータ 逆転
915



CHIP CONVEYOR FORWARD
チップコンベア 正転
922 924

CHIP CONVEYOR REVERSE
チップコンベア 逆転
925 921



THE SECOND OVER TRAVEL
第2オーバートラベル
(EMERGENCY STOP)
非常停止

CR8 116 PL S11

PROGRAM END (M02)
プログラムエンド (M30)
PAT LIGHT (OPTION)
パトライト (オプション)

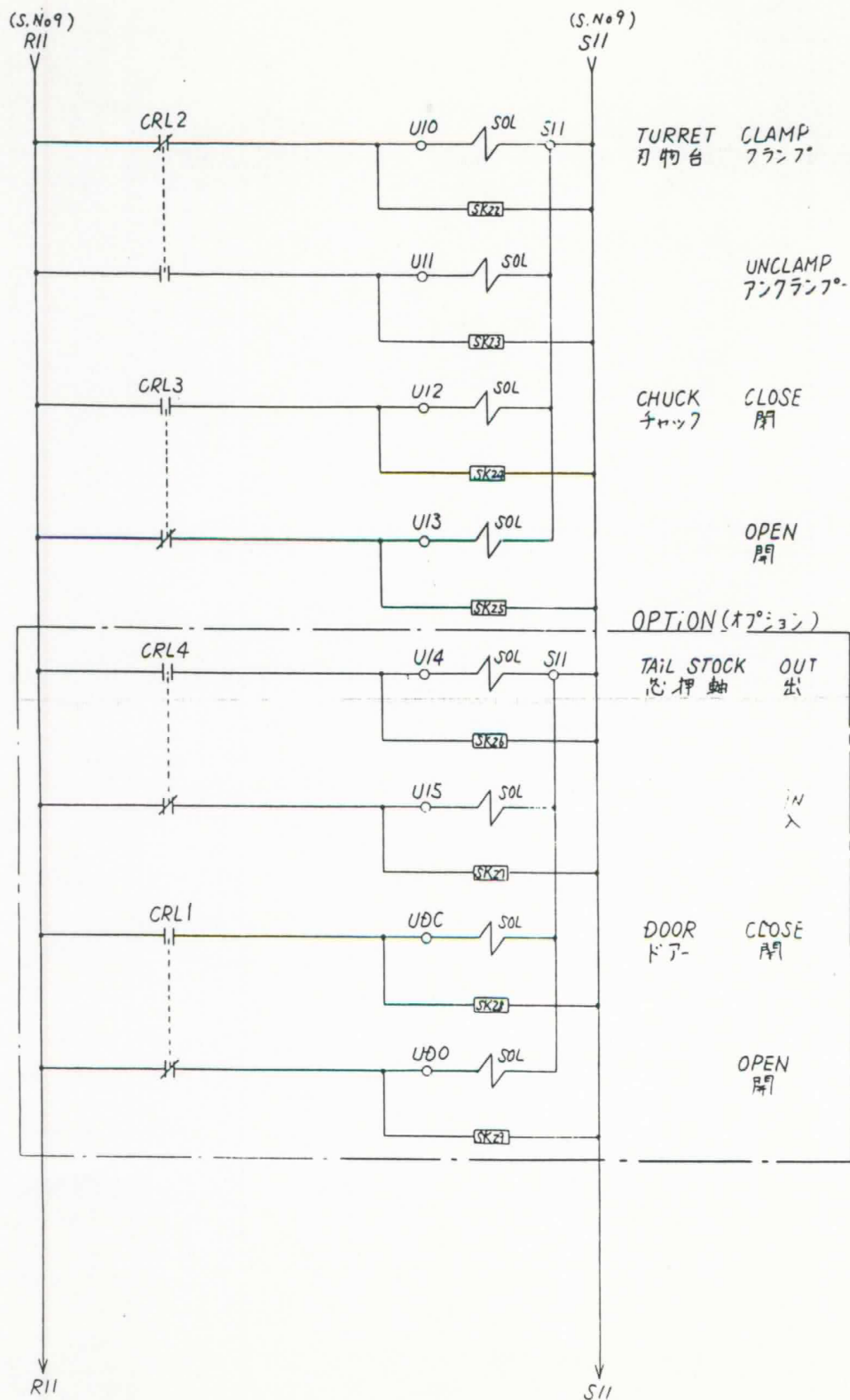
RYOWA ELECTRIC CORPORATION	3RD ANGLE IN PROJECTION	DIM SCALE 1:1	DATE JUN-1983
DRAWN (CHECKED) DESIGNED			
APPROVED			

RE-300002B, 9

展開模図

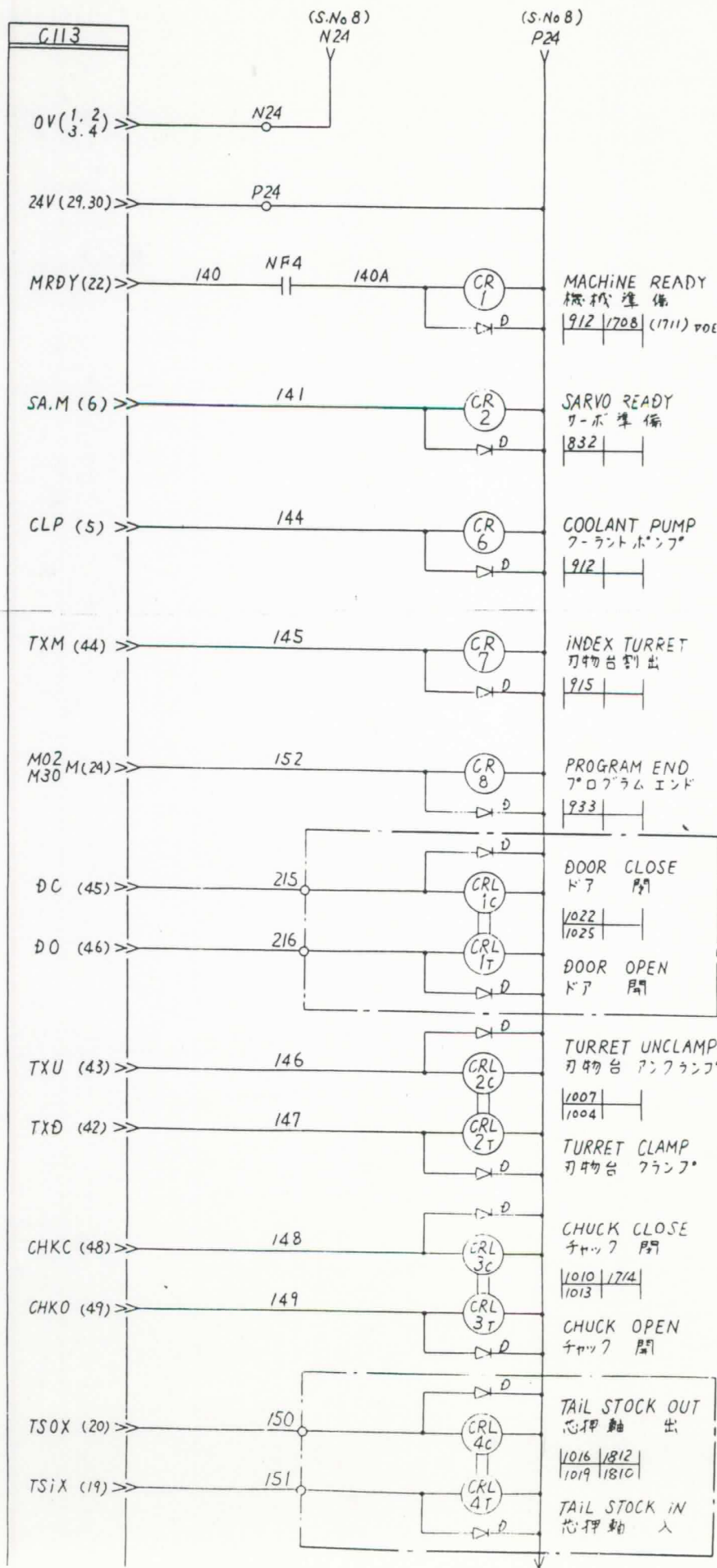
SE-0
(M13)

改訂 CHANGE		A	
第3角法 PROJECTION		DIM LINE SCALE 1:1	
DRAWN CHECKED DESIGNED		APPROVED	
RYOWA ELECTRIC CORPORATION		DATE 7-JUN-1983	
RE-300002B		展開校核	
10		SC-0 (MTL3)	



CHANGE

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OPTION
X7.5

OPTION
X7.5

第3角法 PROJECTION		DIM. RUN SCALE (FRACTIONAL) 1/8" = 1"		DATE 1983	
DRAWN		CHECKED		DESIGNED	
APPROVED					
RYOWA ELECTRIC CORPORATION					
展開接続図 ELEMENTARY DIAGRAM					
SC-0 HFL-3					

RE-300002 B

改 訂
CHANGE

A

(C113)

RST.M (23) >>

214



RESET SIGNAL
リセット信号

623

RRC-1

BSPE.S (27) >>

250



SPINDLE EMERGENCY
主軸非常停止

607

SFR.M (25) >>

251



SPINDLE FORWARD
主軸正転

609

SRV.M (26) >>

252



SPINDLE REVERSE
主軸逆転

611

SORCM (41) >>

253



SPINDLE ORIENT COMMAND
主軸位置決め指令

612

SAT (8) >>

254



SPINDLE AUTO
主軸自動

615

SMN (7) >>

255



SPINDLE MANUAL
主軸手動

616

SPON (10) >>

136

SPINDLE REVOLUTION
主軸回転中

(11) >>

540

(12) >>

541

(15) >>

542

ZP.M (4) >>

543

MACHINE ZERO POINT
機械原点位置

(15) >>

544

(16) >>

545

(17) >>

546

(18) >>

547

M/C CONTROL READY
M/C 準備完了

P24

M/C ALARM
M/C 異常

M/C OPERATION
M/C 運転中

第3角法	3RD ANGLE	DIM	SCALE	作成	DATE
PROJECTION	IN	1/8"	1/8"	1/8"	1/8"
RYOMA ELECTRIC CORPORATION					
DRAWN	CHECKED	DESIGNED	APPROVED		

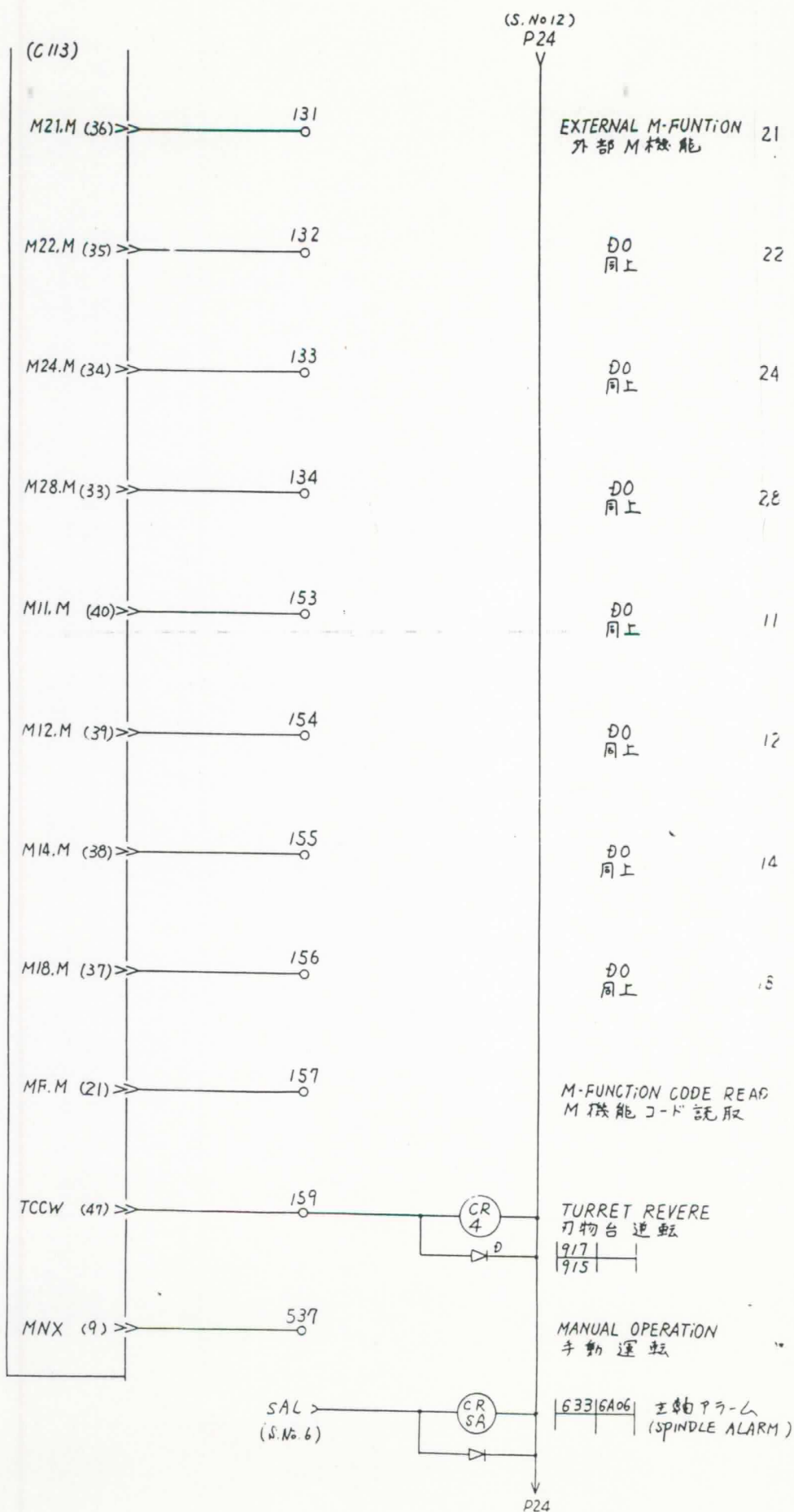
展開接続図
ELEMENTARY DIAGRAM

SI-0
[MF3]

RE-300002 B

12

改訂 CHANGE		A	
第3角注 PROJECTION		DIM. IN SCALE	
RYOMA ELECTRIC CORPORATION		DATE 18-MAY-1983	
DRAWN CHECKED DESIGNED APPROVED		DATE 13	
RE-300002 B		13	



IT
CHANGE

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C 2

M00.M (18)

158

M01.M (19)

202

ERR (20)

538

(S.No13)
P24

M00 OUT PUT
出力

M01 OUT PUT
出力

ERROR
エラー

P24

第3角法 PROJECTION	3RD ANGLE IN	DATE 14-JUN-1983	RYOMA ELECTRIC CORPORATION
DRAWN	CHECKED	DESIGNED	APPROVED

展 示 技 術 図

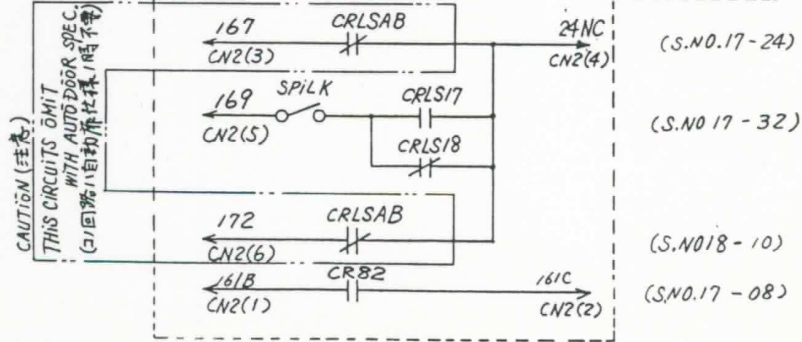
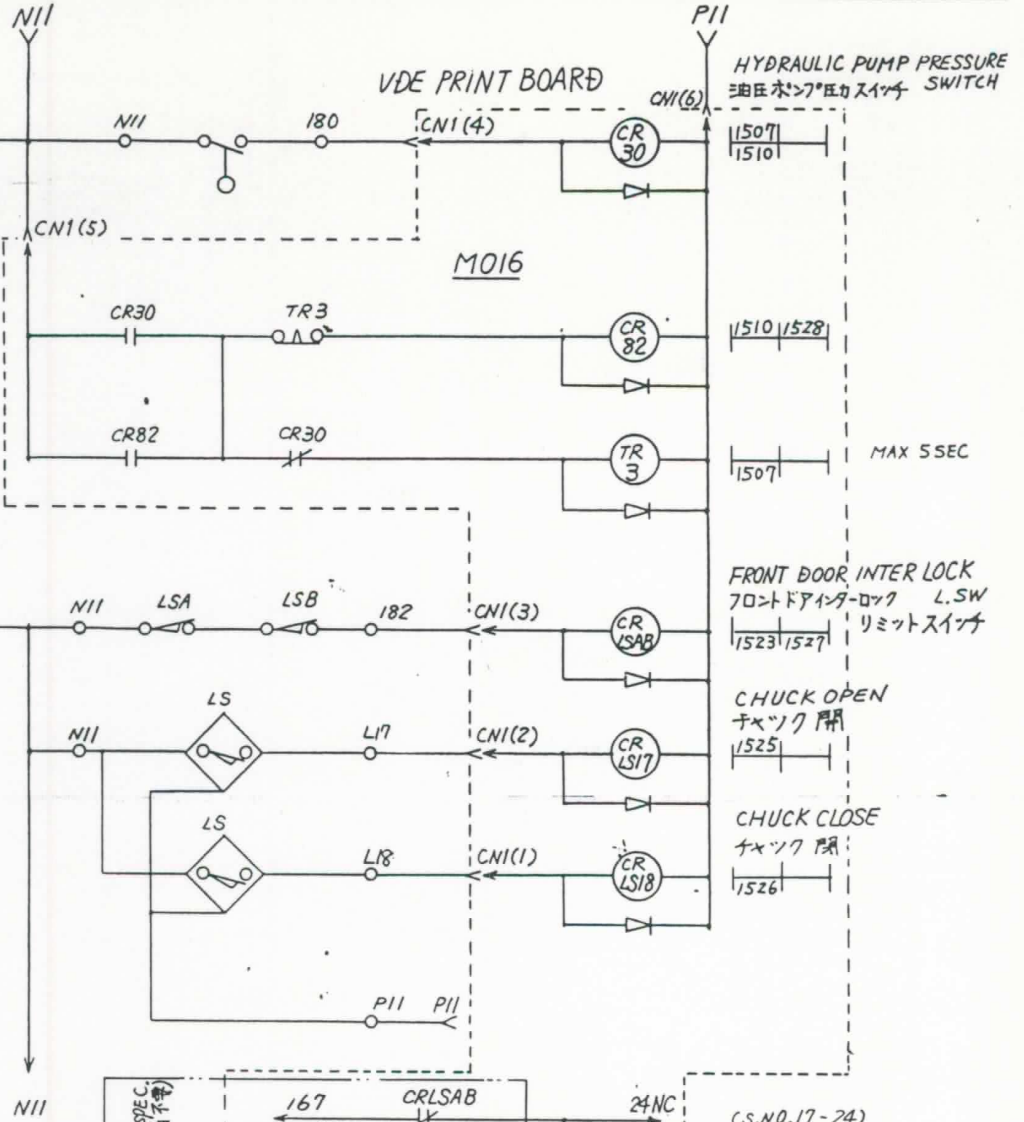
ST-0
(M.L.3)

RE-300002 B

14

CHANGE IT

A



CIRCUIT FOR TYPE: VDE

PARTS LIST 部品表

ITEM	DISCRIPTION	SPECIFICATION	MAKER	QUANT	REMARKS
1	DELAY RELAY	MY2V DC24V 5SEC	TATEISHI	1	
2	RELAY	42V-2 DC24V	DO	5	
3	SNAP SWITCH	A-12-JP	NIKAI	1	
4	DIODE	VO3E	HITACHI	6	
5	CONNECTOR	VH-6N	NICHIAI	2	RECEPTACLE
6	DO	86P-6H	DO	2	PULG
7	RELAY SOCKET	PY-14-0	TATEISHI	1	
8	SPRING	Y92H-3	TATEISHI	1	

RYOWA ELECTRIC CORPORATION
DRAWN
CHECKED
DESIGNED
APPROVED

第3角法
3RD ANGLE
PROJECTION
DIM SCALE
IN
60-9-26
NIS
60-9-26
NIS

展開接続図
ELEMENTARY DIAGRAM

SL-O
(MFL3)

RE-300002 B

15

改訂
CHANGE

A

C112

+24V (30)
(31)

Z4NC

FS1 (10)

F1

FS1

FOOT SWITCH 1
フットスイッチ 1

FS2 (26)

F2

FS2

FOOT SWITCH 2
フットスイッチ 2

B.PLZ,M (29)

L5

±Z AXIS OVER TRAVEL
±Z軸オーバートラベル

B.DECX,M (21)

L15

LS15

(X AXIS) (X軸)
PROXIMITY SWITCH
FOR ZERO RETURN
原点復帰用
近接スイッチ
(Z AXIS) (Z軸)
OPTION オプション

B.DECZ,M (22)

L16

LS16

LSDO (13)

LDO

LSDO

AUTO DOOR OPEN FIN
自動ドア開 確認

LSDC (44)

LDC

LSDC

AUTO DOOR CLOSE FIN
自動ドア閉 確認

+24V (32)

Z4NC

OV (3)
(4)

ONC

LS9 (16)

L9

LS9

LS10 (47)

L10

LS10

LS11 (17)

L11

LS11

PROXIMITY SWITCH
FOR TURPET INDEX
刀物台到出用
近接スイッチ

LS12 (48)

L12

LS12

LS13 (18)

L13

LS13

LS14 (20)

L14

LS14

TURRET CLAMP OK
刀物台クランプ 確認

CSiC (41)

NS2

CSS

IN
SIDE

OUT
SIDE

内張

外張

CHUCK INSIDE CLAMP
チャック内張

Z4NC
(S.No 6, 17, 18)

第3角注

PROJECTION

MIN

IN

DIM

SCALE

1:2

DATE

12-JUN-1983

APPROVED

BY

DATE

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RE

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RE

300002B

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RE

300002B

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改訂
CHANGE

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(C112)

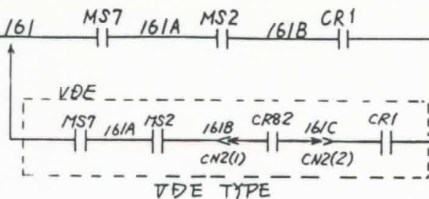
MER.M (14)

N53

Z4NC

MACHINE ERROR
マシンエラー

MRDYFN(23)



MACHINE READY FIN
機械準備完了

CKCL.F (40)

162

CRL3

CHUCK CLOSE FIN
チャック閉確認

BDT.M (33)

165

BLOCK DELETE
ブロックデリート

ST.M (34)

166

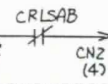
Z4NC

CYCLE START
サイクルスタート

SP.M (35)

167

VDE TYPE



FEED HOLD
フィードホールド

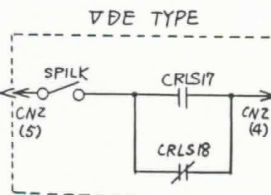
ERS.M (12)

168

EXTERNAL RESET
外部リセット

SPILK (19)

169



SPINDLE INTERLOCK
主軸インターロック

SPJ (36)

170

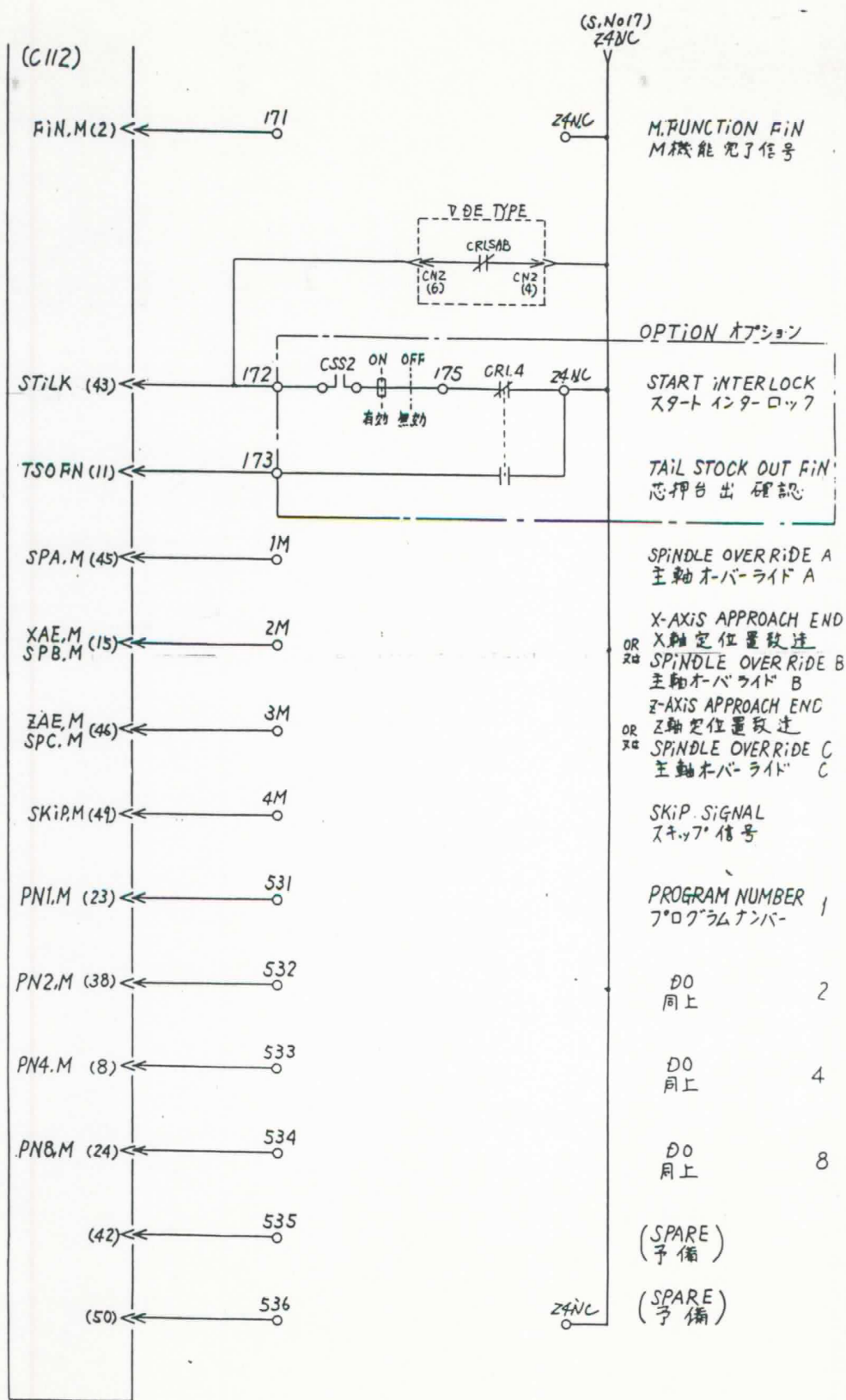
Z4NC

SPINDLE JOG
主軸寸動

第3角法 PROJECTION	30 ANGLE IN	DIM R/R SCALE	DATE 13-JUN-1983
RYOWA ELECTRIC CORPORATION	CHECKED	DESIGNED	APPROVED
RE-300002 B			
17			

改 訂
CHANGE

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第3角法 PROJECTION	30 ANGLE IN	DIM. RUN SCALE 1:1	作成日 14-JUN-1983
作成 DRAWN	検査 CHECKED	設計 DESIGNED	承認 APPROVED
RYOWA ELECTRIC CORPORATION			
RE-300002 B			
18			

改 訂
CHANGE

A

C I

(29)(30)
+24 (31)(32)

C&N (37)

SP&N (39)

SP&T (40)

SP&R (41)

TR&T (38)

CL&T&N (42)

CL&T&T (43)

D&M (44)

D&C (45)

T&S (46)

T&S (47)

ST&M (34)

SP&M (35)

B.ESP&M (36)

KEY&P (14)

MD&M (10)

MD&Z (11)

MD&4 (12)

MD&8 (13)

R&T&S (A) (B) (C) (D)

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PB 4

PB 5

PB 11

PB 12

PB 13

PB 14

PB 15

PB 16

PB 17

PB 18

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K&S&P

K&S&P

K&S&P

K&S&P

K&S&P

K&S&P

K&S&P

K&S&P

K&S&P

K&S&P

K&S&P

K&S&P

K&S&P

K&S&P

POWER ON SWITCH
(電源オンスイッチ)

SPINDLE NORMAL
(主轴正常)

SPINDLE OFF
(主轴停止)

SPINDLE REVERSE
(主轴逆転)

TURRET SHIFT
(刀台選択)

COOLANT PUMP ON
(冷却ポンプオン)

COOLANT PUMP OFF
(冷却ポンプオフ)

OPTION (オプション)

DOOR OPEN
(ドア開)

DOOR CLOSE
(ドア閉)

TAIL STOCK OUT
(尾架出)

TAIL STOCK IN
(尾架入)

CYCLE START
(サイクルスタート)

FEED HOLD
(フィードホールド)

EMERGENCY STOP
(非常停止)

KEY SWITCH (EOT MODE)
(EOTモードスイッチ)

MODE SELECT
(モード選択)

EDT

MEM

MDi

TX1

HX10

J

RTM

ZRM

(TINH)

(TINJ)

X or Z AXIS SELECT
(X or Z 軸選択)

(+X 方向)

(-X 方向)

(+Z 方向)

(-Z 方向)

第3角法
DIM LINE SCALE
1:84
RHYMA ELECTRIC CORPORATION
DRAWN, CHECKED, DESIGNED
APPROVED

展開接続図
ELEMENTARY DIAGRAM
操機型機床
OPERATOR MACHINE PANEL
1/4
SLO
CH27

RE-300002 B) 19

CHANGE IT

A

01

02

03

04

05

06

07

08

09

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

29

30

31

32

33

34

35

36

37

38

39

40

C1

+24

TX1

(24)

TX2

(23)

TX4

(22)

TX8

(21)

RSW4(A)

(B)

(C)

(D)

TURRET No
(turret No)

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8

B0V1.M (18)

B0V2.M (17)

B0V4.M (16)

B0V8.M (15)

RSW2(A)

(B)

(C)

(D)

FEED RATE OVERRIDE
(送りオーバーライド)

- 0 %
- 10
- 20
- 30
- 40
- 50
- 60
- 70
- 80
- 90
- 100
- 110
- 120
- 130
- 140
- 150

R0V1.M (20)

R0V2.M (19)

RSW1(A)

(B)

RAPID TRIP OVERRIDE
(早送りオーバーライド)

- 0 %
- 25
- 50
- 100

MLK.M (28)

DRN.M (25)

BDT.M (26)

OSP (33)

SBK.M (27)

OG (50)

PB6

PB7

PB8

PB9

PB10

D1

D10

D11

D12

D14

MACHINE LOCK
(マシロック)

DRY RUN
(ドライラン)

BLACK DELETE
(ブラックデリート)

OPTIONAL STOP
(オプションストップ)

SINGLE BLOCK
(シングルブロック)

0V
(To [C2] (1)(2))

+24

第3角法
PROJECTION
DIM/RE SCALE
IN
mm
1/84 11 7
RYOMA ELECTRIC CORPORATION
DRAWN (CHECKED) DESIGNED
APPROVED

展開接続図
ELEMENTARY DIAGRAM
操縦機機械パネル
OPERATION'S MACHINE PANEL
SL-C
(17)(23)
1/4

RE-300002B 19

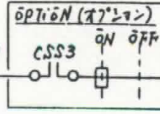
改訂
CHANGE

A

C1

DILK.M (7)

DILK.M



OPTION (アブロン)
DOOR INTERLOCK (ON-OFF)
(ドアインロー) 糸引装置

PRC.M (8)

PRC.M

ERS.M (9)

ERS.M

4P.M (48)

4P.M

2P.M (49)

2P.M

+24

+24

第3角法 3RD ANGLE PROJECTION	3RD ANGLE PROJECTION	DIM IN	SCALE 1:1	DATE 11.7
DRAWN	CHECKED	DESIGNED	APPROVED	

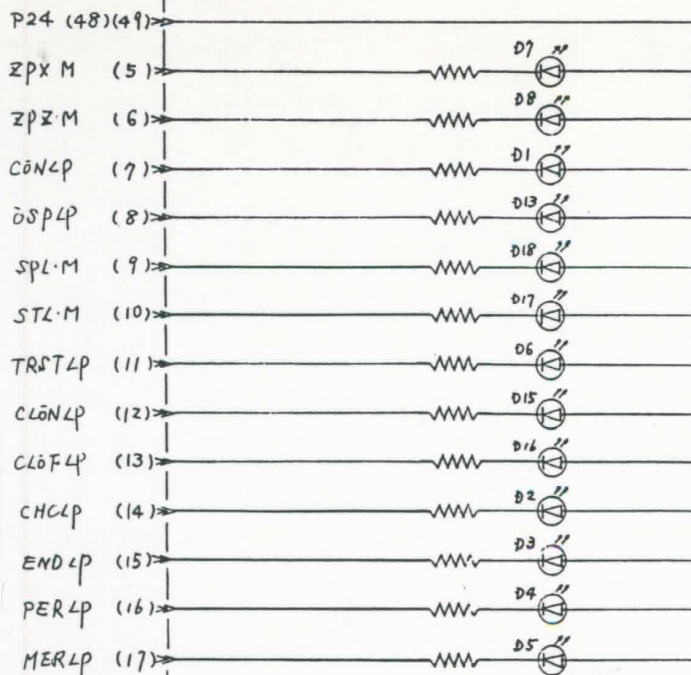
RYOWA ELECTRIC CORPORATION	展開接続図 ELEMENTARY DIAGRAM	3/4
将下巻機 (180°)		
(OPERATOR'S MACHINE 90°)		

RE-300002B) 19

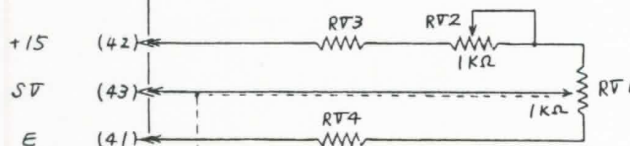
改訂
CHANGE

A

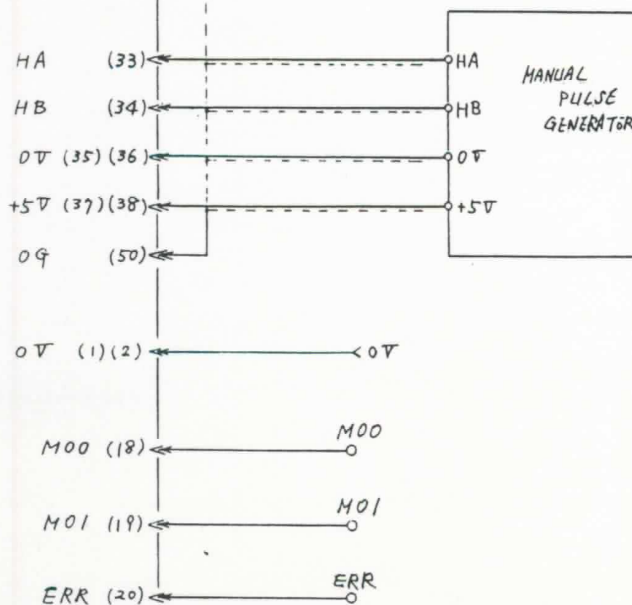
C 2



X-ZERO RETURN LAMP
(X 座戻りランプ)
Z-ZERO RETURN LAMP
(Z 座戻りランプ)
MACHINE READY LAMP
(機械準備完了ランプ)
OPTICAL STOP LAMP (MOI)
(光学停止ランプ)
FEED HOLD LAMP
(フィードホールドランプ)
CYCLE START LAMP
(サイクルスタートランプ)
TURRET INDEX LAMP
(タレットインデックスランプ)
COOLANT PUMP ON LAMP
(冷却ポンプオンランプ)
COOLANT PUMP OFF LAMP
(冷却ポンプオフランプ)
CHUCK CLAMP LAMP
(チャッククランプランプ)
MO2/H30 SIGNAL LAMP
(M02/H30 シグナルランプ)
PROGRAM ERROR LAMP
(プログラムエラーランプ)
MACHINE ERROR LAMP
(機械エラーランプ)



VOLUME FOR SPINDLE MANUAL
SPEED
主軸スピンドル速度 (手動)

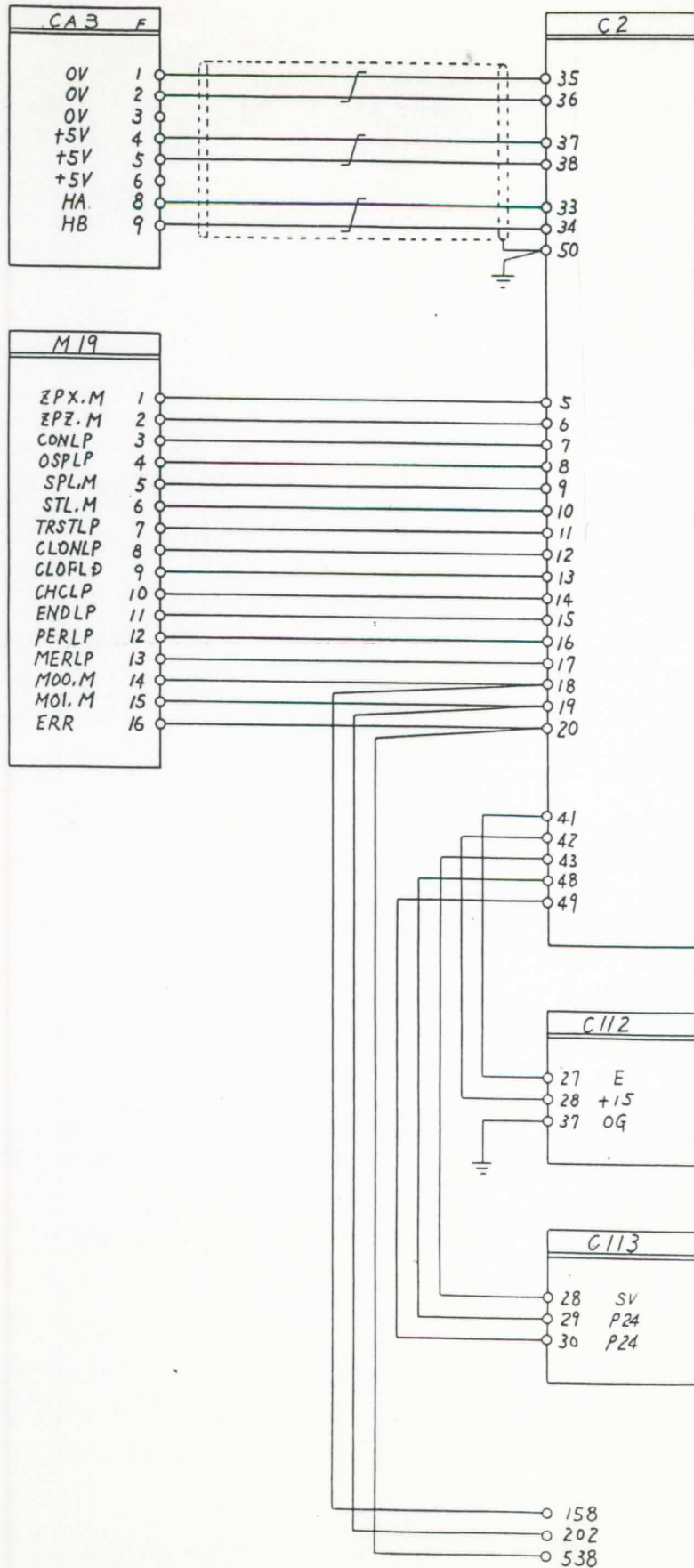


手動パルス発生器

RYOMA ELECTRIC CORPORATION
300 角法
PRODUCTION
DIM. IN
1/8" (3.175)
1/4" (6.35)
1/2" (12.7)
3/4" (19.05)
1" (25.4)
1 1/4" (31.75)
1 1/2" (38.1)
2" (50.8)
2 1/2" (63.5)
3" (76.2)
3 1/2" (88.9)
4" (101.6)
4 1/2" (114.3)
5" (127)
5 1/2" (140)
6" (152.4)
6 1/2" (165.1)
7" (177.8)
7 1/2" (190.5)
8" (203.2)
8 1/2" (215.9)
9" (228.6)
9 1/2" (241.3)
10" (254)
10 1/2" (266.7)
11" (279.4)
11 1/2" (292.1)
12" (304.8)
12 1/2" (317.5)
13" (330.2)
13 1/2" (342.9)
14" (355.6)
14 1/2" (368.3)
15" (381)
15 1/2" (393.7)
16" (406.4)
16 1/2" (419.1)
17" (431.8)
17 1/2" (444.5)
18" (457.2)
18 1/2" (469.9)
19" (482.6)
19 1/2" (495.3)
20" (508)
20 1/2" (520.7)
21" (533.4)
21 1/2" (546.1)
22" (558.8)
22 1/2" (571.5)
23" (584.2)
23 1/2" (596.9)
24" (609.6)
24 1/2" (622.3)
25" (635)
25 1/2" (647.7)
26" (660.4)
26 1/2" (673.1)
27" (685.8)
27 1/2" (698.5)
28" (711.2)
28 1/2" (723.9)
29" (736.6)
29 1/2" (749.3)
30" (762)
30 1/2" (774.7)
31" (787.4)
31 1/2" (800.1)
32" (812.8)
32 1/2" (825.5)
33" (838.2)
33 1/2" (850.9)
34" (863.6)
34 1/2" (876.3)
35" (889)
35 1/2" (901.7)
36" (914.4)
36 1/2" (927.1)
37" (939.8)
37 1/2" (952.5)
38" (965.2)
38 1/2" (977.9)
39" (990.6)
39 1/2" (1003.3)
40" (1016)
40 1/2" (1028.7)
41" (1041.4)
41 1/2" (1054.1)
42" (1066.8)
42 1/2" (1079.5)
43" (1092.2)
43 1/2" (1104.9)
44" (1117.6)
44 1/2" (1130.3)
45" (1143)
45 1/2" (1155.7)
46" (1168.4)
46 1/2" (1181.1)
47" (1193.8)
47 1/2" (1206.5)
48" (1219.2)
48 1/2" (1231.9)
49" (1244.6)
49 1/2" (1257.3)
50" (1270)
50 1/2" (1282.7)
51" (1295.4)
51 1/2" (1308.1)
52" (1320.8)
52 1/2" (1333.5)
53" (1346.2)
53 1/2" (1358.9)
54" (1371.6)
54 1/2" (1384.3)
55" (1397)
55 1/2" (1409.7)
56" (1422.4)
56 1/2" (1435.1)
57" (1447.8)
57 1/2" (1460.5)
58" (1473.2)
58 1/2" (1485.9)
59" (1498.6)
59 1/2" (1511.3)
60" (1524)
60 1/2" (1536.7)
61" (1549.4)
61 1/2" (1562.1)
62" (1574.8)
62 1/2" (1587.5)
63" (1600.2)
63 1/2" (1612.9)
64" (1625.6)
64 1/2" (1638.3)
65" (1651)
65 1/2" (1663.7)
66" (1676.4)
66 1/2" (1689.1)
67" (1701.8)
67 1/2" (1714.5)
68" (1727.2)
68 1/2" (1739.9)
69" (1752.6)
69 1/2" (1765.3)
70" (1778)
70 1/2" (1790.7)
71" (1803.4)
71 1/2" (1816.1)
72" (1828.8)
72 1/2" (1841.5)
73" (1854.2)
73 1/2" (1866.9)
74" (1879.6)
74 1/2" (1892.3)
75" (1905)
75 1/2" (1917.7)
76" (1930.4)
76 1/2" (1943.1)
77" (1955.8)
77 1/2" (1968.5)
78" (1981.2)
78 1/2" (1993.9)
79" (2006.6)
79 1/2" (2019.3)
80" (2032)
80 1/2" (2044.7)
81" (2057.4)
81 1/2" (2070.1)
82" (2082.8)
82 1/2" (2095.5)
83" (2108.2)
83 1/2" (2120.9)
84" (2133.6)
84 1/2" (2146.3)
85" (2159)
85 1/2" (2171.7)
86" (2184.4)
86 1/2" (2197.1)
87" (2209.8)
87 1/2" (2222.5)
88" (2235.2)
88 1/2" (2247.9)
89" (2260.6)
89 1/2" (2273.3)
90" (2286)
90 1/2" (2298.7)
91" (2311.4)
91 1/2" (2324.1)
92" (2336.8)
92 1/2" (2349.5)
93" (2362.2)
93 1/2" (2374.9)
94" (2387.6)
94 1/2" (2400.3)
95" (2413)
95 1/2" (2425.7)
96" (2438.4)
96 1/2" (2451.1)
97" (2463.8)
97 1/2" (2476.5)
98" (2489.2)
98 1/2" (2501.9)
99" (2514.6)
99 1/2" (2527.3)
100" (2540)
100 1/2" (2552.7)
101" (2565.4)
101 1/2" (2578.1)
102" (2590.8)
102 1/2" (2603.5)
103" (2616.2)
103 1/2" (2628.9)
104" (2641.6)
104 1/2" (2654.3)
105" (2667)
105 1/2" (2679.7)
106" (2692.4)
106 1/2" (2705.1)
107" (2717.8)
107 1/2" (2730.5)
108" (2743.2)
108 1/2" (2755.9)
109" (2768.6)
109 1/2" (2781.3)
110" (2794)
110 1/2" (2806.7)
111" (2819.4)
111 1/2" (2832.1)
112" (2844.8)
112 1/2" (2857.5)
113" (2870.2)
113 1/2" (2882.9)
114" (2895.6)
114 1/2" (2908.3)
115" (2921)
115 1/2" (2933.7)
116" (2946.4)
116 1/2" (2959.1)
117" (2971.8)
117 1/2" (2984.5)
118" (2997.2)
118 1/2" (3009.9)
119" (3022.6)
119 1/2" (3035.3)
120" (3048)
120 1/2" (3060.7)
121" (3073.4)
121 1/2" (3086.1)
122" (3098.8)
122 1/2" (3111.5)
123" (3124.2)
123 1/2" (3136.9)
124" (3149.6)
124 1/2" (3162.3)
125" (3175)
125 1/2" (3187.7)
126" (3200.4)
126 1/2" (3213.1)
127" (3225.8)
127 1/2" (3238.5)
128" (3251.2)
128 1/2" (3263.9)
129" (3276.6)
129 1/2" (3289.3)
130" (3302)
130 1/2" (3314.7)
131" (3327.4)
131 1/2" (3340.1)
132" (3352.8)
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133" (3378.2)
133 1/2" (3390.9)
134" (3403.6)
134 1/2" (3416.3)
135" (3429)
135 1/2" (3441.7)
136" (3454.4)
136 1/2" (3467.1)
137" (3479.8)
137 1/2" (3492.5)
138" (3505.2)
138 1/2" (3517.9)
139" (3530.6)
139 1/2" (3543.3)
140" (3556)
140 1/2" (3568.7)
141" (3581.4)
141 1/2" (3594.1)
142" (3606.8)
142 1/2" (3619.5)
143" (3632.2)
143 1/2" (3644.9)
144" (3657.6)
144 1/2" (3670.3)
145" (3683)
145 1/2" (3695.7)
146" (3708.4)
146 1/2" (3721.1)
147" (3733.8)
147 1/2" (3746.5)
148" (3759.2)
148 1/2" (3771.9)
149" (3784.6)
149 1/2" (3797.3)
150" (3810)
150 1/2" (3822.7)
151" (3835.4)
151 1/2" (3848.1)
152" (3860.8)
152 1/2" (3873.5)
153" (3886.2)
153 1/2" (3898.9)
154" (3911.6)
154 1/2" (3924.3)
155" (3937)
155 1/2" (3949.7)
156" (3962.4)
156 1/2" (3975.1)
157" (3987.8)
157 1/2" (4000.5)
158" (4013.2)
158 1/2" (4025.9)
159" (4038.6)
159 1/2" (4051.3)
160" (4064)
160 1/2" (4076.7)
161" (4089.4)
161 1/2" (4102.1)
162" (4114.8)
162 1/2" (4127.5)
163" (4140.2)
163 1/2" (4152.9)
164" (4165.6)
164 1/2" (4178.3)
165" (4191)
165 1/2" (4203.7)
166" (4216.4)
166 1/2" (4229.1)
167" (4241.8)
167 1/2" (4254.5)
168" (4267.2)
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170 1/2" (4330.7)
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171 1/2" (4356.1)
172" (4368.8)
172 1/2" (4381.5)
173" (4394.2)
173 1/2" (4406.9)
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174 1/2" (4432.3)
175" (4445)
175 1/2" (4457.7)
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176 1/2" (4483.1)
177" (4495.8)
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178" (4521.2)
178 1/2" (4533.9)
179" (4546.6)
179 1/2" (4559.3)
180" (4572)
180 1/2" (4584.7)
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184 1/2" (4686.3)
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186" (4724.4)
186 1/2" (4737.1)
187" (4749.8)
187 1/2" (4762.5)
188" (4775.2)
188 1/2" (4787.9)
189" (4800.6)
189 1/2" (4813.3)
190" (4826)
190 1/2" (4838.7)
191" (4851.4)
191 1/2" (4864.1)
192" (4876.8)
192 1/2" (4889.5)
193" (4902.2)
193 1/2" (4914.9)
194" (4927.6)
194 1/2" (4940.3)
195" (4953)
195 1/2" (4965.7)
196" (4978.4)
196 1/2" (4991.1)
197" (5003.8)
197 1/2" (5016.5)
198" (5029.2)
198 1/2" (5041.9)
199" (5054.6)
199 1/2" (5067.3)
200" (5080)
200 1/2" (5092.7)
201" (5105.4)
201 1/2" (5118.1)
202" (5130.8)
202 1/2" (5143.5)
203" (5156.2)
203 1/2" (5168.9)
204" (5181.6)
204 1/2" (5194.3)
205" (5207)
205 1/2" (5219.7)
206" (5232.4)
206 1/2" (5245.1)
207" (5257.8)
207 1/2" (5270.5)
208" (5283.2)
208 1/2" (5295.9)
209" (5308.6)
209 1/2" (5321.3)
210" (5334)
210 1/2" (5346.7)
211" (5359.4)
211 1/2" (5372.1)
212" (5384.8)
212 1/2" (5397.5)
213" (5410.2)
213 1/2" (5422.9)
214" (5435.6)
214 1/2" (5448.3)
215" (5461)
215 1/2" (5473.7)
216" (5486.4)
216 1/2" (5499.1)
217" (5511.8)
217 1/2" (5524.5)
218" (5537.2)
218 1/2" (5549.9)
219" (5562.6)
219 1/2" (5575.3)
220" (5588)
220 1/2" (5600.7)
221" (5613.4)
221 1/2" (5626.1)
222" (5638.8)
222 1/2" (5651.5)
223" (5664.2)
223 1/2" (5676.9)
224" (5689.6)
224 1/2" (5702.3)
225" (5715)
225 1/2" (5727.7)
226" (5740.4)
226 1/2" (5753.1)
227" (5765.8)
227 1/2" (5778.5)
228" (5791.2)
228 1/2" (5803.9)
229" (5816.6)
229 1/2" (5829.3)
230" (5842)
230 1/2" (5854.7)
231" (5867.4)
231 1/2" (5880.1)
232" (5892.8)
232 1/2" (5905.5)
233" (5918.2)
233 1/2" (5930.9)
234" (5943.6)
234 1/2" (5956.3)
235" (5969)
235 1/2" (5981.7)
236" (5994.4)
236 1/2" (6007.1)
237" (6019.8)
237 1/2" (6032.5)
238" (6045.2)
238 1/2" (6057.9)
239" (6070.6)
239 1/2" (6083.3)
240" (6096)
240 1/2" (6108.7)
241" (6121.4)
241 1/2" (6134.1)
242" (6146.8)
242 1/2" (6159.5)
243" (6172.2)
243 1/2" (6184.9)
244" (6197.6)
244 1/2" (6210.3)
245" (6223)
245 1/2" (6235.7)
246" (6248.4)
246 1/2" (6261.1)
247" (6273.8)
247 1/2" (6286.5)
248" (6299.2)
248 1/2" (6311.9)
249" (6324.6)
249 1/2" (6337.3)
250" (6350)
250 1/2" (6362.7)
251" (6375.4)
251 1/2" (6388.1)
252" (6400.8)
252 1/2" (6413.5)
253" (6426.2)
253 1/2" (6438.9)
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254 1/2" (6464.3)
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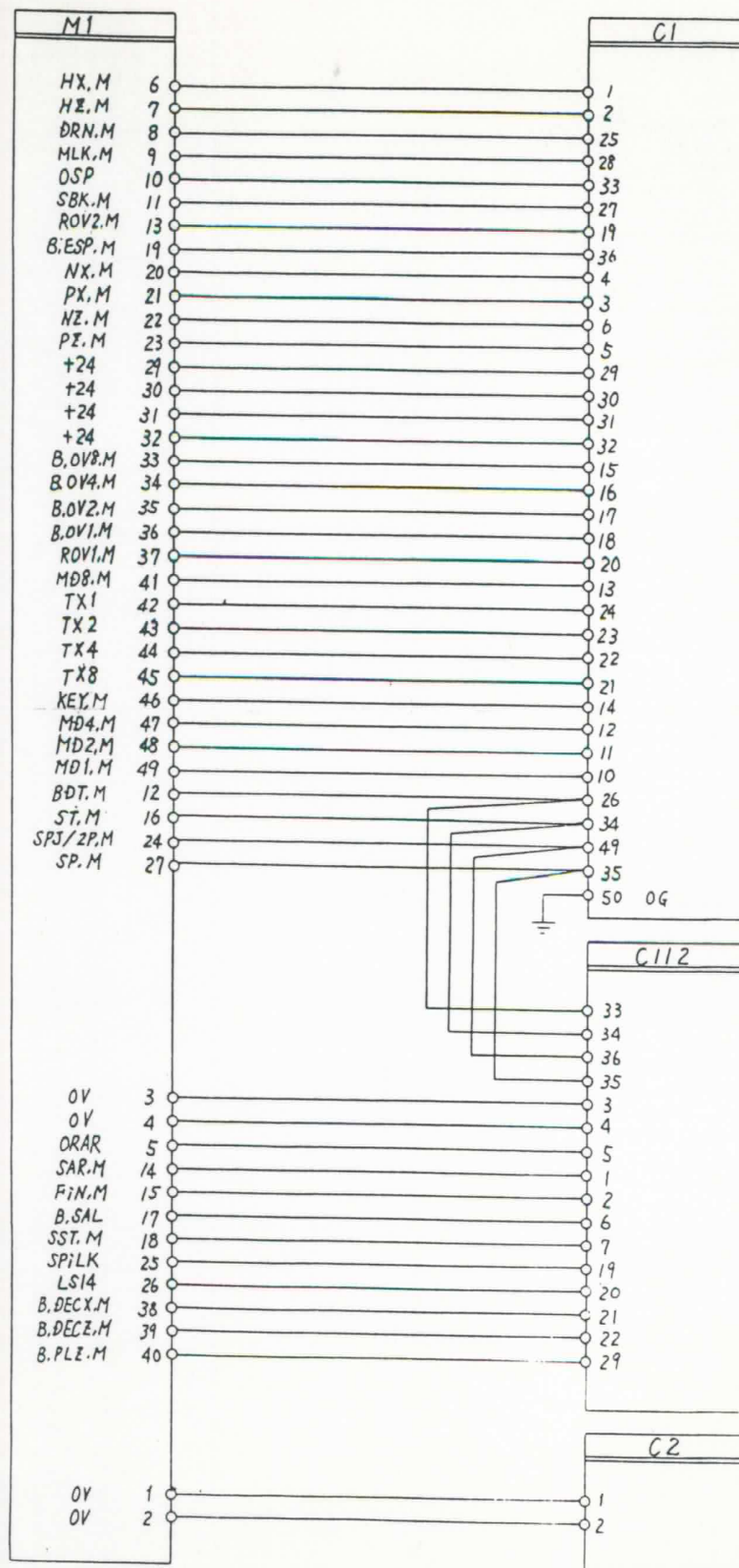
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第3角法		3RD ANGLE		DIM LINE SCALE		DATE	
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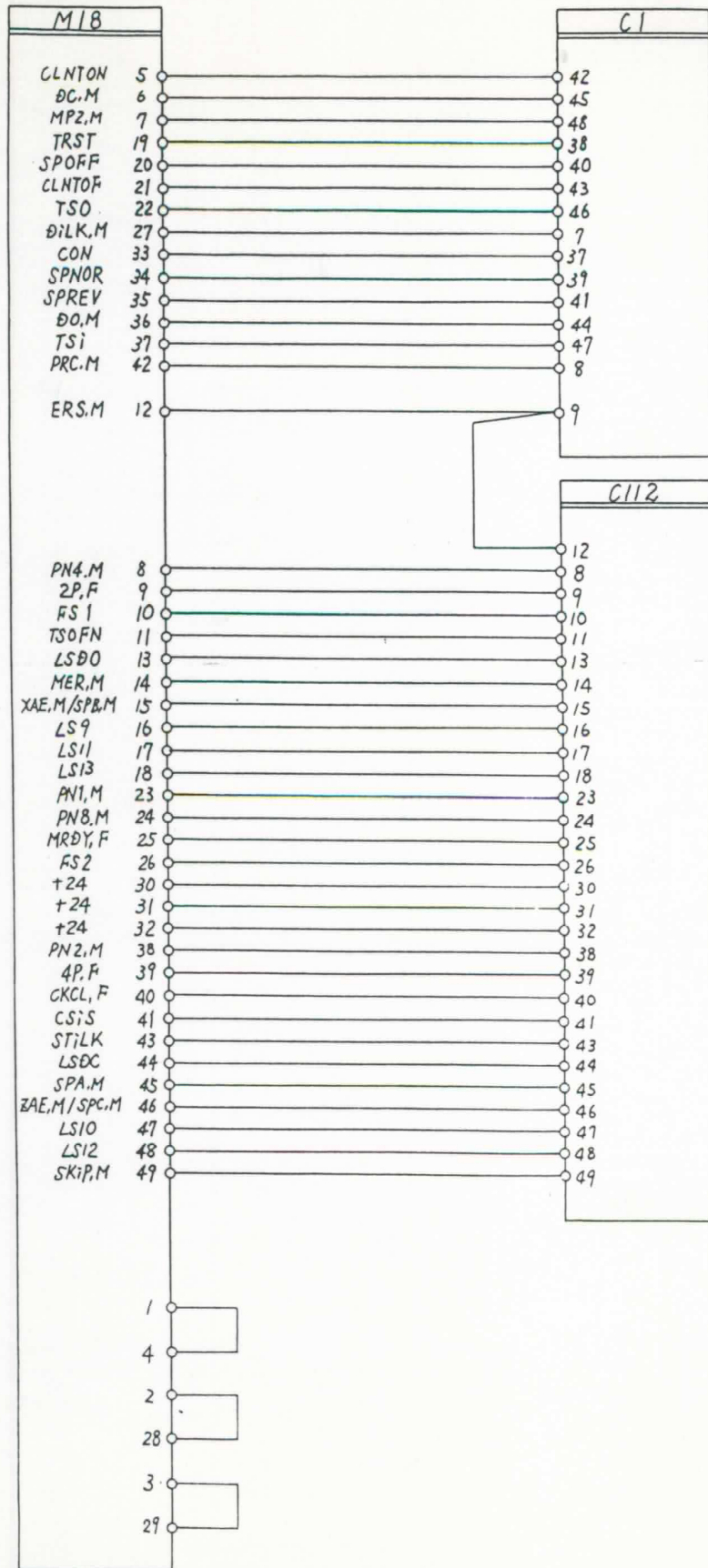
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第3角法 PROJECTION	3RD ANGLE IN	縮尺 SCALE	作成日 DATE
RYOMA ELECTRIC CORPORATION	1/10	9-MAY-1983	分線図
DRAWN	CHECKED	DESIGNED	APPROVED
RE-300002B			
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第3角注 PROJECTION		DIM IN		R/SCALE 1/15		DATE 9-MAY-1983	
RYOWA ELECTRIC CORPORATION				APPROVED			
DRAWN CHECKED		DESIGNED		APPROVED			

RE-300002B

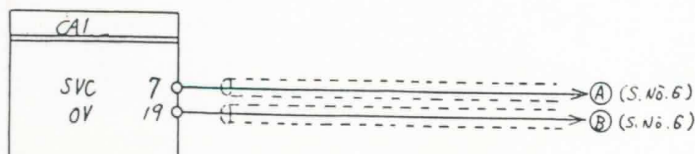
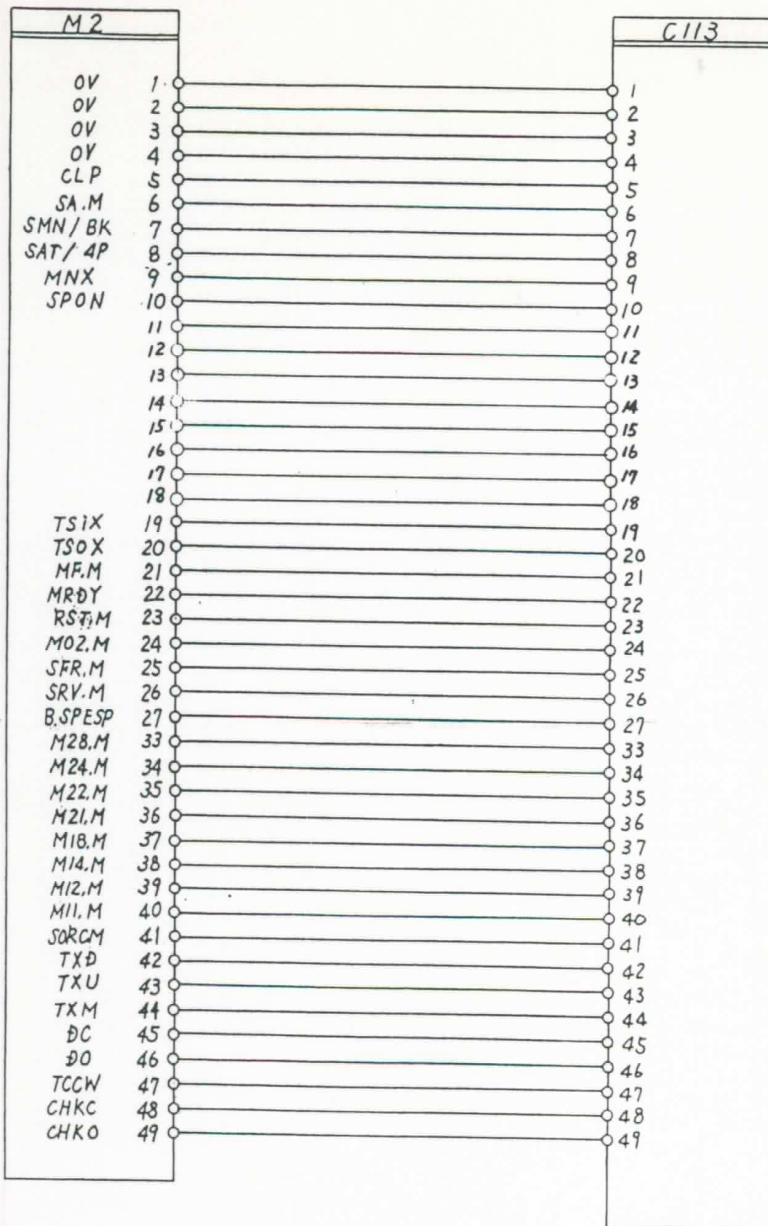
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第3角注 DIM IN PROJECTION	RYOWA ELECTRIC CORPORATION
尺碼 SCALE	1/8"=1'-0"
DATE 1983-11-17	DESIGNED CHECKED APPROVED

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RE-300002B

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420	423	P997	1000

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R11	S11	E	U10	U11	S11	E	U12	U13	U14	U15	S11	E	U16	U17	S11	E	U18	U19	S11	E	U20	U21	S11	E	U22	U23	U24	U25	S11	E	U26	U27	S11	E	U28	U29	S11	E	U30	U31	S11	E	U32	U33	U34	U35	S11	E	U36	U37	S11	E	U38	U39	S11	E	U40	U41	S11	E	U42	U43	U44	U45	S11	E	U46	U47	S11	E	U48	U49	S11	E	U50	U51	S11	E	U52	U53	U54	U55	S11	E	U56	U57	S11	E	U58	U59	S11	E	U60	U61	S11	E	U62	U63	U64	U65	S11	E	U66	U67	S11	E	U68	U69	S11	E	U70	U71	S11	E	U72	U73	U74	U75	S11	E	U76	U77	S11	E	U78	U79	S11	E	U80	U81	S11	E	U82	U83	U84	U85	S11	E	U86	U87	S11	E	U88	U89	S11	E	U90	U91	S11	E	U92	U93	U94	U95	S11	E	U96	U97	S11	E	U98	U99	S11	E	U100	U101	S11	E	U102	U103	U104	U105	S11	E	U106	U107	S11	E	U108	U109	S11	E	U110	U111	S11	E	U112	U113	U114	U115	S11	E	U116	U117	S11	E	U118	U119	S11	E	U120	U121	S11	E	U122	U123	U124	U125	S11	E	U126	U127	S11	E	U128	U129	S11	E	U130	U131	S11	E	U132	U133	U134	U135	S11	E	U136	U137	S11	E	U138	U139	S11	E	U140	U141	S11	E	U142	U143	U144	U145	S11	E	U146	U147	S11	E	U148	U149	S11	E	U150	U151	S11	E	U152	U153	U154	U155	S11	E	U156	U157	S11	E	U158	U159	S11	E	U160	U161	S11	E	U162	U163	U164	U165	S11	E	U166	U167	S11	E	U168	U169	S11	E	U170	U171	S11	E	U172	U173	U174	U175	S11	E	U176	U177	S11	E	U178	U179	S11	E	U180	U181	S11	E	U182	U183	U184	U185	S11	E	U186	U187	S11	E	U188	U189	S11	E	U190	U191	S11	E	U192	U193	U194	U195	S11	E	U196	U197	S11	E	U198	U199	S11	E	U200	U201	S11	E	U202	U203	U204	U205	S11	E	U206	U207	S11	E	U208	U209	S11	E	U210	U211	S11	E	U212	U213	U214	U215	S11	E	U216	U217	S11	E	U218	U219	S11	E	U220	U221	S11	E	U222	U223	U224	U225	S11	E	U226	U227	S11	E	U228	U229	S11	E	U230	U231	S11	E	U232	U233	U234	U235	S11	E	U236	U237	S11	E	U238	U239	S11	E	U240	U241	S11	E	U242	U243	U244	U245	S11	E	U246	U247	S11	E	U248	U249	S11	E	U250	U251	S11	E	U252	U253	U254	U255	S11	E	U256	U257	S11	E	U258	U259	S11	E	U260	U261	S11	E	U262	U263	U264	U265	S11	E	U266	U267	S11	E	U268	U269	S11	E	U270	U271	S11	E	U272	U273	U274	U275	S11	E	U276	U277	S11	E	U278	U279	S11	E	U280	U281	S11	E	U282	U283	U284	U285	S11	E	U286	U287	S11	E	U288	U289	S11	E	U290	U291	S11	E	U292	U293	U294	U295	S11	E	U296	U297	S11	E	U298	U299	S11	E	U300	U301	S11	E	U302	U303	U304	U305	S11	E	U306	U307	S11	E	U308	U309	S11	E	U310	U311	S11	E	U312	U313	U314	U315	S11	E	U316	U317	S11	E	U318	U319	S11	E	U320	U321	S11	E	U322	U323	U324	U325	S11	E	U326	U327	S11	E	U328	U329	S11	E	U330	U331	S11	E	U332	U333	U334	U335	S11	E	U336	U337	S11	E	U338	U339	S11	E	U340	U341	S11	E	U342	U343	U344	U345	S11	E	U346	U347	S11	E	U348	U349	S11	E	U350	U351	S11	E	U352	U353	U354	U355	S11	E	U356	U357	S11	E	U358	U359	S11	E	U360	U361	S11	E	U362	U363	U364	U365	S11	E	U366	U367	S11	E	U368	U369	S11	E	U370	U371	S11	E	U372	U373	U374	U375	S11	E	U376	U377	S11	E	U378	U379	S11	E	U380	U381	S11	E	U382	U383	U384	U385	S11	E	U386	U387	S11	E	U388	U389	S11	E	U390	U391	S11	E	U392	U393	U394	U395	S11	E	U396	U397	S11	E	U398	U399	S11	E	U400	U401	S11	E	U402	U403	U404	U405	S11	E	U406	U407	S11	E	U408	U409	S11	E	U410	U411	S11	E	U412	U413	U414	U415	S11	E	U416	U417	S11	E	U418	U419	S11	E	U420	U421	S11	E	U422	U423	U424	U425	S11	E	U426	U427	S11	E	U428	U429	S11	E	U430	U431	S11	E	U432	U433	U434	U435	S11	E	U436	U437	S11	E	U438	U439	S11	E	U440	U441	S11	E	U442	U443	U444	U445	S11	E	U446	U447	S11	E	U448	U449	S11	E	U450	U451	S11	E	U452	U453	U454	U455	S11	E	U456	U457	S11	E	U458	U459	S11	E	U460	U461	S11	E	U462	U463	U464	U465	S11	E	U466	U467	S11	E	U468	U469	S11	E	U470	U471	S11	E	U472	U473	U474	U475	S11	E	U476	U477	S11	E	U478	U479	S11	E	U480	U481	S11	E	U482	U483	U484	U485	S11	E	U486	U487	S11	E	U488	U489	S11	E	U490	U491	S11	E	U492	U493	U494	U495	S11	E	U496	U497	S11	E	U498	U499	S11	E	U500	U501	S11	E	U502	U503	U504	U505	S11	E	U506	U507	S11	E	U508	U509	S11	E	U510	U511	S11	E	U512	U513	U514	U515	S11	E	U516	U517	S11	E	U518	U519	S11	E	U520	U521	S11	E	U522	U523	U524	U525	S11	E	U526	U527	S11	E	U528	U529	S11	E	U530	U531	S11	E	U532	U533	U534	U535	S11	E	U536	U537	S11	E	U538	U539	S11	E	U540	U541	S11	E	U542	U543	U544	U545	S11	E	U546	U547	S11	E	U548	U549	S11	E	U550	U551	S11	E	U552	U553	U554	U555	S11	E	U556	U557	S11	E	U558	U559	S11	E	U560	U561	S11	E	U562	U563	U564	U565	S11	E	U566	U567	S11	E	U568	U569	S11	E	U570	U571	S11	E	U572	U573	U574	U575	S11	E	U576	U577	S11	E	U578	U579	S11	E	U580	U581	S11	E	U582	U583	U584	U585	S11	E	U586	U587	S11	E	U588	U589	S11	E	U590	U591	S11	E	U592	U593	U594	U595	S11	E	U596	U597	S11	E	U598	U599	S11	E	U600	U601	S11	E	U602	U603	U604	U605	S11	E	U606	U607	S11	E	U608	U609	S11	E	U610	U611	S11	E	U612	U613	U614	U615	S11	E	U616	U617	S11	E	U618	U619	S11	E	U620	U621	S11	E	U622	U623	U624	U625	S11	E	U626	U627	S11	E	U628	U629	S11	E	U630	U631	S11	E	U632	U633	U634	U635	S11	E	U636	U637	S11	E	U638	U639	S11	E	U640	U641	S11	E	U642	U643	U644	U645	S11	E	U646	U647	S11	E	U648	U649	S11	E	U650	U651	S11	E	U652	U653	U654	U655	S11	E	U656	U657	S11	E	U658	U659	S11	E	U660	U661	S11	E	U662	U663	U664	U665	S11	E	U666	U667	S11	E	U668	U669	S11	E	U670	U671	S11	E	U672	U673	U674	U675	S11	E	U676	U677	S11	E	U678	U679	S11	E	U680	U681	S11	E	U682	U683	U684	U685	S11	E	U686	U687	S11	E	U688	U689	S11	E	U690	U691	S11	E	U692	U693	U694	U695	S11	E	U696	U697	S11	E	U698	U699	S11	E	U700	U701	S11	E	U702	U703	U704	U705	S11	E	U706	U707	S11	E	U708	U709	S11	E	U710	U711	S11	E	U712	U713	U714	U715	S11	E	U716	U717	S11	E	U718	U719	S11	E	U720	U721	S11	E	U722	U723	U724	U725	S11	E	U726	U727	S11	E	U728	U729	S11	E	U730	U731	S11	E	U732	U733	U734	U735	S11	E	U736	U737	S11	E	U738	U739	S11	E	U740	U741	S11	E	U742	U743	U744	U745	S11	E	U746	U747	S11	E	U748	U749	S11	E	U750	U751	S11	E	U752	U753	U754	U755	S11	E	U756	U757	S11	E	U758	U759	S11	E	U760	U761	S11	E	U762	U763	U764	U765	S11	E	U766	U767	S11	E	U768	U769	S11	E	U770	U771	S11	E	U772	U773	U774	U775	S11	E	U776	U777	S11	E	U778	U779	S11	E	U780	U781	S11	E	U782	U783	U784	U785	S11	E	U786	U787	S11	E	U788	U789	S11	E	U790	U791	S11	E	U792	U793	U794	U795	S11	E	U796	U797	S11	E	U798	U799	S11	E	U800	U801	S11	E	U802	U803	U804	U805	S11	E	U806	U807	S11	E	U808	U809	S11	E	U810	U811	S11	E	U812	U813	U814	U815	S11	E	U816	U817	S11	E	U818	U819	S11	E	U820	U821	S11	E	U822	U823	U824	U825	S11	E	U826	U827	S11	E	U828	U829	S11	E	U830	U831	S11	E	U832	U833	U834	U835	S11	E	U836	U837	S11	E	U838	U839	S11	E	U840	U841	S11	E	U842	U843	U844	U845	S11	E	U846	U847	S11	E	U848	U849	S11	E	U850	U851	S11	E	U852	U853	U854	U855	S11	E	U856	U857	S11	E	U858	U859	S11	E	U860	U861	S11	E	U862	U863	U864	U865	S11	E	U866	U867	S11	E	U868	U869	S11	E	U870	U871	S11	E	U872	U873	U874	U875	S11	E	U876	U877	S11	E	U878	U879	S11	E	U880	U881	S11	E	U882	U883	U884	U885	S11	E	U886	U887	S11	E	U888	U889	S11	E	U890	U891	S11	E	U892	U893	U894	U895	S11	E	U896	U897	S11	E	U898	U899	S11	E	U900	U901	S11	E	U902	U903	U904	U905	S11	E	U906	U907	S11	E	U908	U909	S11	E	U910	U911	S11	E
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