

# OWNER'S MANUAL RD-805EE

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**IMPORTANT:** Read these instructions before installing, operating or servicing this products

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## MODEL: PT-100/PT-200 POSITIONERS

Serial Number : W05001~W05499

Revised Date: April 1, 2001

### **UNITED PROARC CORPORATION**

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No. 3-1 Kung Yei 10<sup>th</sup> Road, Ping Chen Ind. Park,  
Tao Yuan Hsien, Taiwan R.O.C.  
<http://www.proarc.com.tw>

Tel No: 886 3 4698970  
Fax No: 886 3 4694499  
E-Mail: [sales@proarc.com.tw](mailto:sales@proarc.com.tw)

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## INTRODUCTION

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### WARNING

A procedure which, if not properly followed, may cause injury to the operator or others in the operating area.

#### Equipment Identification

The unit's identification number specification or part number, model, and serial number usually appears on a nameplate attached to the control panel, record these numbers for future reference.

#### Receipt of Equipment

When you receive the equipment, check it against the shipping documents. Make sure it is complete and inspect the equipment for possible damage during shipping. If there is any damage, notify the carrier immediately to file a claim.

Furnish complete information concerning damage claims or mistakes in shipment to United ProArc Corporation: No. 3-1 Kung Yei 10<sup>th</sup> Road, Ping Chen Ind. Park, Tao Yuan Hsien, Taiwan R.O.C. Include the equipment identification number along with a description of the parts in question.

Move the equipment to the installation site before uncrating the unit. Use care to avoid damaging the equipment when using bars, hammers, etc. to uncrate the unit.

## INTRODUCTION

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### **WARNING**

Falling machine due to lifting eye failure may cause death or injury.

- \* Lifting device may fail when overloaded.
  - \* Avoid sudden jerks, drops or swinging.
  - \* Check lifting device components visually for looseness and signs of metal fatigue.
  - \* Before changing any hardware, check grade and size of bolts, and replace with bolts of equal or higher size and grade.
- Additional copies of this manual may be purchased by contacting United ProArc Corporation.

## **LIMITED WARRANTY**

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**UNITED PROARC CORPORATION** of Tao Yuan, Taiwan warrants all new equipment to be free from defects in material and workmanship for the period of one (1) year, provided that the equipment is installed and operated according to instructions.

**UNITED PROARC**'s obligation under this warranty policy is expressly limited to the replace or repair, at its option, of the defected part only. ProArc's option to repair or replacement of a defected part under this warranty shall be based on FOB Taiwan basis.

**UNITED PROARC CORPORATION** shall not be liable for any loss or consequential damage or express accruing directly or indirectly from the use of equipment covered by this warranty.

This warranty supersedes all previous ProArc warranties and is exclusive with no other guarantees or warranties expressed or implied.

This warranty excludes the consumable parts that are used in normal operation.

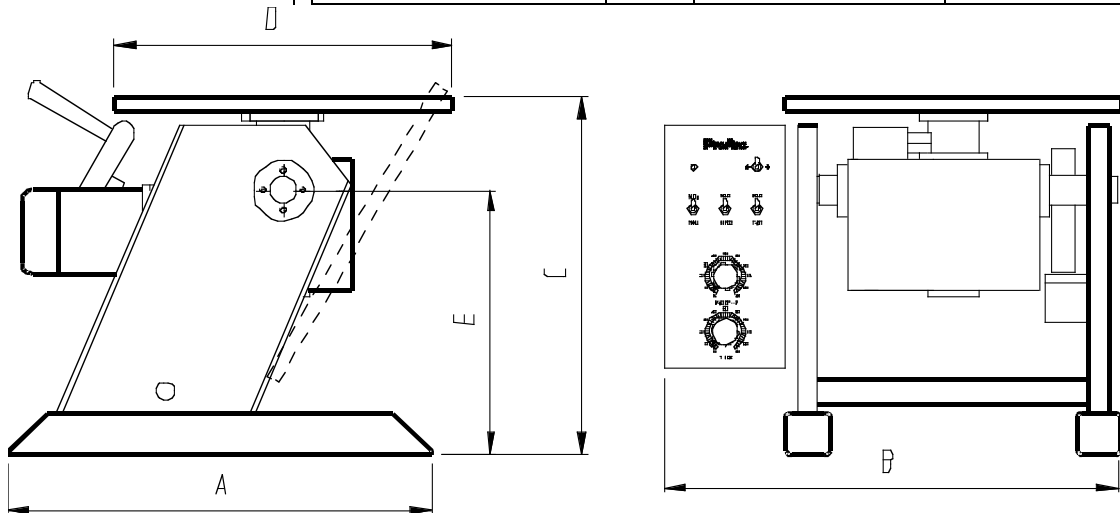
## 1.1 GENERAL INFORMATION

### Features

1. The DC drive P.C. board protected against high-frequency.
2. Table tilt from 0~120° for the convenience of welding.
3. Spindle has a  $\phi 38.5$ mm through hole to suit pipe working or gas purge application.
4. 8 slots turning table, quick mounting for various grippers and fixture.
5. Weld timer control (for adjusting the weld period).
6. Integrated with E.Z. Arc system and will help you in production high quality circumference welds.

### Specification

MODEL	UNIT	PT-100A	PT-100B	PT-200A	PT-200B
POWER INPUT	~	1 PHASE 110/220V 50/60Hz			
CAPACITY (HORIZONTAL/VERTICAL)	kg	100/75		200/150	
RATED CENTRE OF GRAVITY	mm	100			
RATED ECCENTRICITY	mm	100			
TABLE DIMENSION (D)	mm	320			
ROTATION SPEED	rpm	1-15	0-4	1-15	0-4
SPINDLE THRU HOLE	mm	38.5			
EARTHING	Amp	300			
TILT RANGE	deg.	0-120			
WELDING TIMER	sec.	0-60			
OVERALL LENGTH (A)	mm	400			
OVERALL WIDTH (B)	mm	430			
OVERALL HEIGHT (C)	mm	340			
CENTER TO FLOOR (E)	mm	250			
WEIGHT	kg	37		40	



## 2.1 CONTROL PANEL

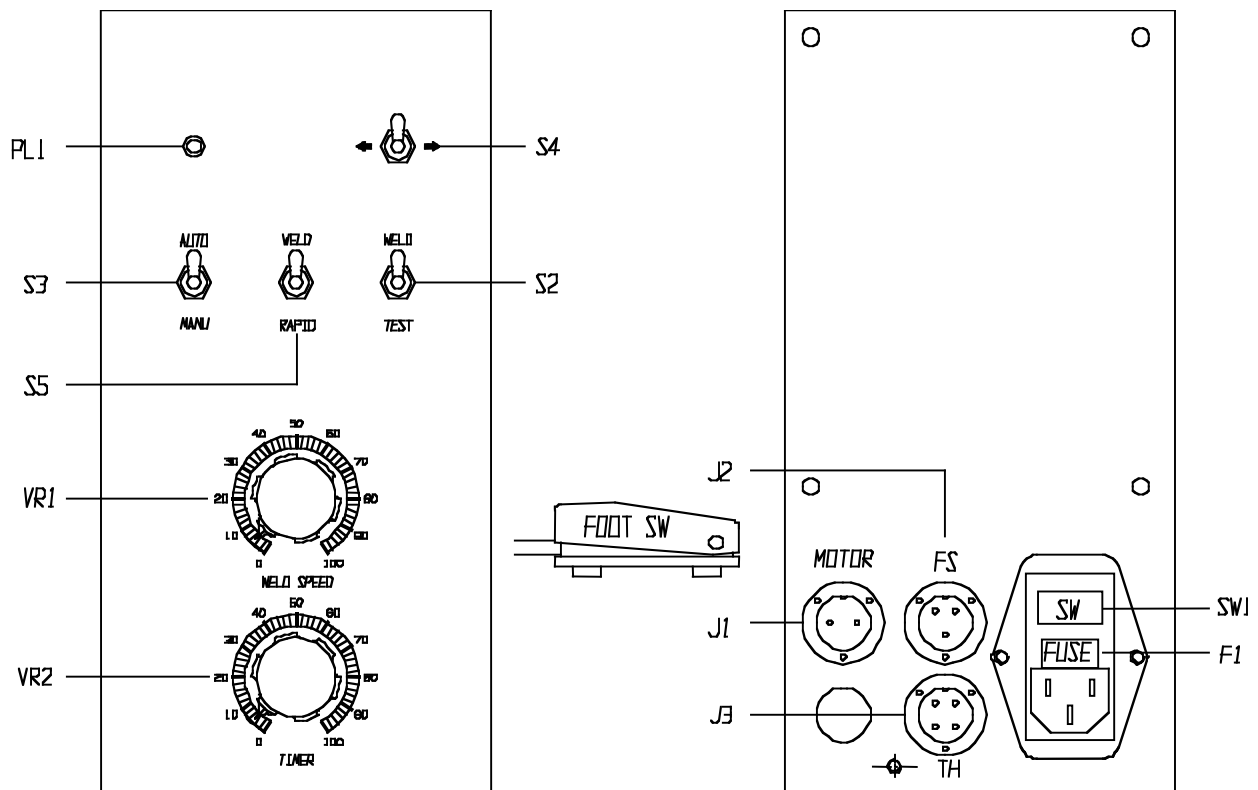
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### Front Panel

- PL1 : Power indicator light
- VR1 : Speed adjustment
- VR2 : Weld timer control
- S2 : Weld/Test switch
- S3 : Auto mode: according to the timer adjustment  
Manual mode: Run/Stop control by remote foot switch
- S4 : Forward/Reverse switch
- S5 : Weld/Rapid Speed switch

### Real panel

- J1 : Motor J1-1, J1-2 (2 Pin)
- J2 : Remote foot switch J2-1, J2-2 (3 Pin)
- J3 : To torch switch J3-1, J3-2 (4 Pin)
- F1 : Fuse
- SW1 : Power ON/OFF switch



### 3.1 TROUBLE SHOOTING GUIDE

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<b>SYMPTOM</b>	<b>POSSIBLE CAUSE</b>	<b>REMEDY</b>
Power light off	Power light break down	Replace LED
No performance at all	Fuse F1 open	Replace 1A fuse
Motor is not workable	Motor control PCB breakdown	Examine component or wiring, replace damaged component.
	Relay F1-F4 breakdown	
	TR burn down	
	Timer breakdown	
	Foot switch is damage or wire is loosing	

## 4.1 PART LIST - MAIN FRAME

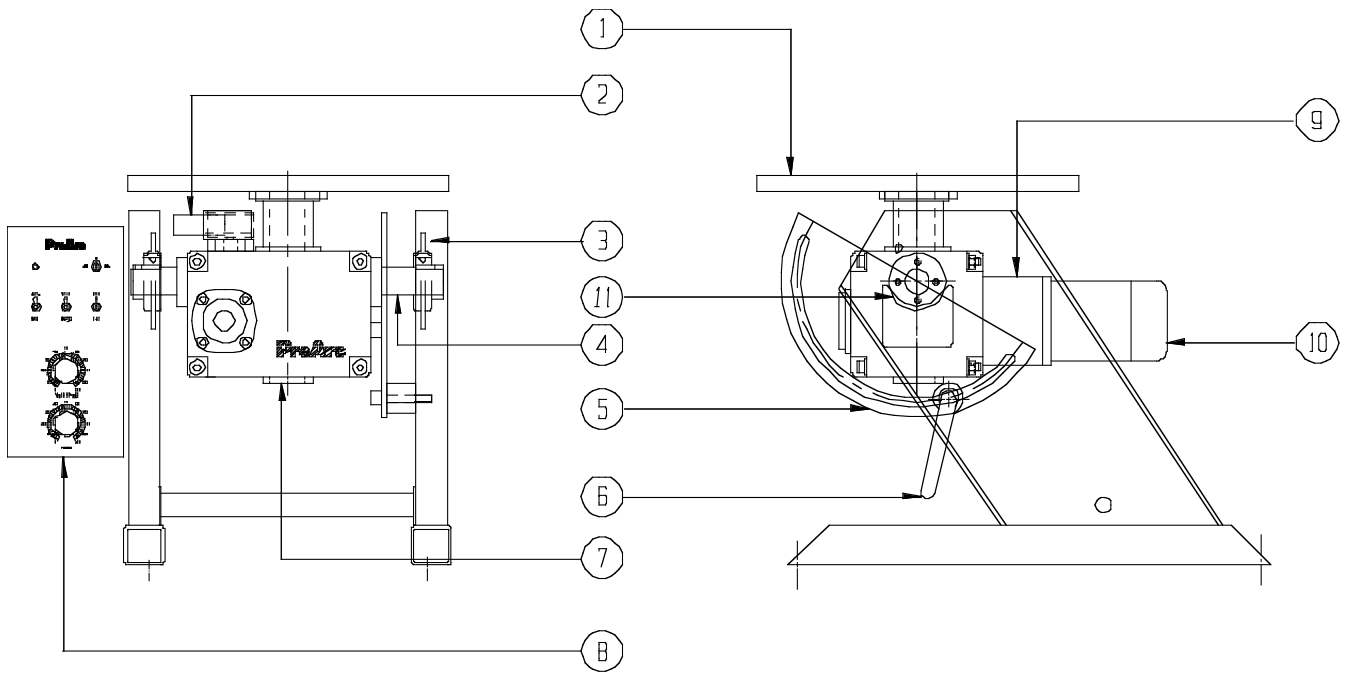
Fig No.	Part No.	Description	Q'ty.		Remark
			PT-100	PT-200	
1	10-101	Faceplate	1	1	
* 2	10-205	Current carbon brush	1	1	
3	20-245	Bearing	2	2	
4	20-115	Gear box fix	1	1	
5	20-230	Angle tilt plate	1		
6	20-246	Locking lever	1		
7	20-242	Worm reducer		1	
8	CB-001A	Control box	1	1	
9	20-243	Gear reducer, 1/7.5(Speed range: A)	1	1	1-15RPM
9	20-247	Gear reducer, 1/30(Speed range: B)	1	1	0-4RPM
***9	20-248	Gear reducer, 1/15(Speed range: C)	1	1	0.5-8RPM
***9	20-249	Gear reducer, 1/10(Speed range: D)	1	1	1-12RPM
10	MT-08SGN24V	DC motor, 24V 40W	1		
10	MT-10SGN24V	DC motor, 24V 65W		1	
11	20-244	Bearing	2	2	
12	20-235	Worm shaft		1	
13	20-236	Worm gear		1	
14	10-211	Hand Wheel		1	

\*Recommended spare parts

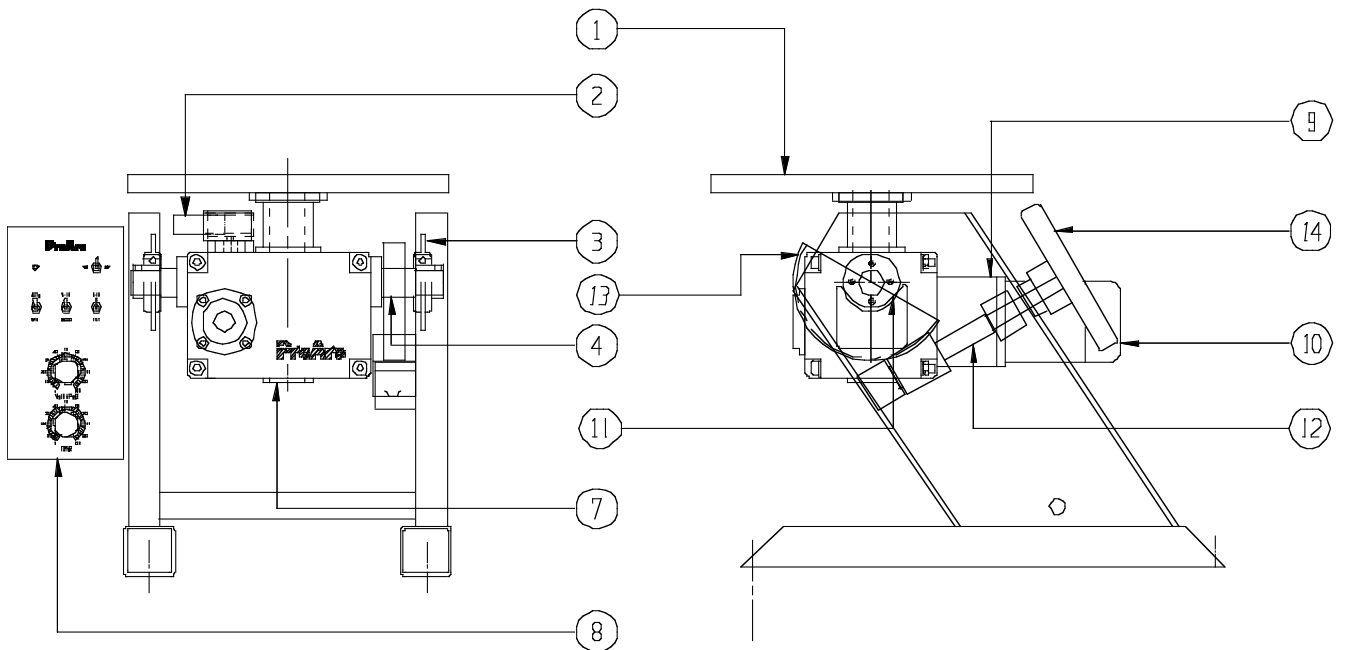
\*\*Consumables

\*\*\*Option

## 4.1 PART LIST - MAIN FRAME



PT-100



PT-200

## 4.2 PART LIST – CONTROL BOX

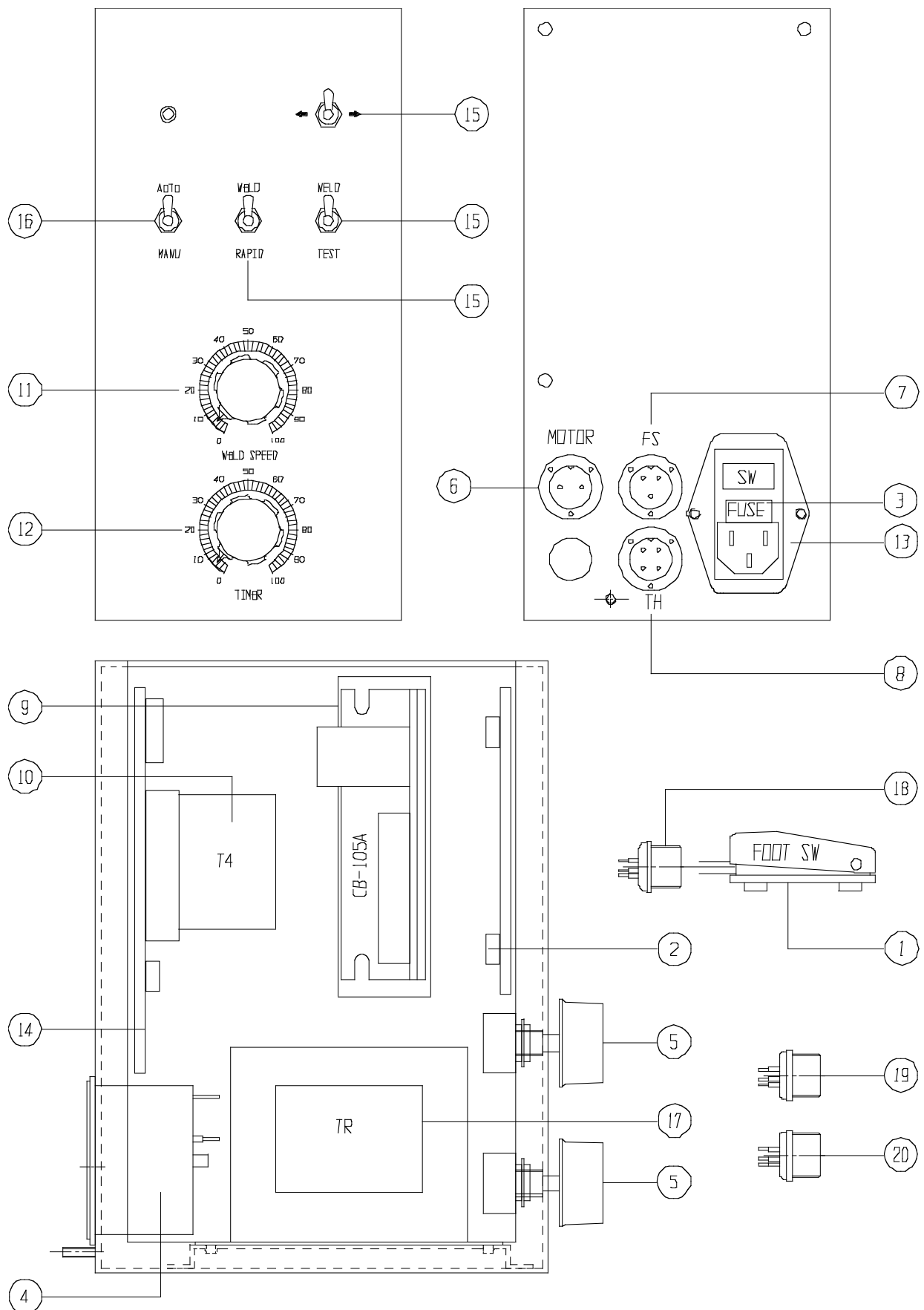
Fig No.	Location	Part No.	Description	Q'ty	Remark
1	Foot switch	217-71132-02	Foot switch with 2M cable	1	
2	Front panel board	171-21221-10	Front panel board	1	
3	FUSE	222-21100-01	FUSE 1A 2mm	1	
4	I/O board	171-20131-10	I/O board	1	
5	KNOB	212-20100-02	KNOB Blue	2	
6	J1	241-21242-01	Metal connector 2 pin	1	
7	J2	241-21243-01	Metal connector 3 pin	1	
8	J3	241-21244-01	Metal connector 4 pin	1	
9	Motor Control	PC-CB-105A	Motor speed control CB-105A	1	
10	T4	171-40000-11	PCB type 60S timer	1	
11	VR1	274-71031-01	Potentiometer 10K ohm	1	
12	VR2	274-75031-01	Potentiometer 50K ohm	1	
13	SW1	212-14036-11	Power entry module	1	
14	Relay board	171-20111-10	Relay board	1	
15	S2,S4,S5	211-34132-05	SW M2012E 3 pin	3	
16	S3	211-34134-05	SW M2022E 3x2 pin	1	
17	TR	231-82031-03	Transform 110/220/18/24V 3A	1	
18	FS connector	241-23243-01	Female Metal connector 3 pin	1	
19	TH	241-23244-01	Female Metal connector 4 pin	1	
20	Motor connector	241-23242-01	Female Metal connector 2 pin	1	

\*Recommended spare parts

\*\*Consumables

\*\*\*Options

## 4.2 PART LIST –CONTROL BOX



### 4.3 Part List – Relay Board

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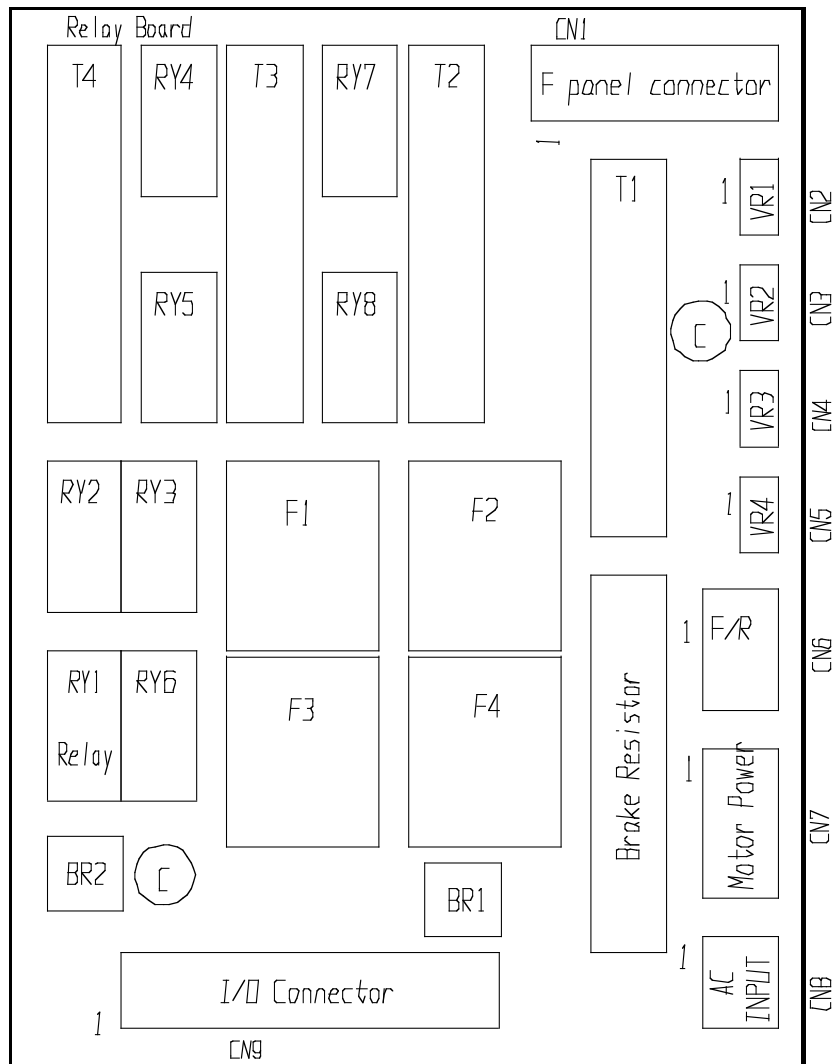
Fig No.	Location	Part No.	Description	Q'ty	Remark
1	R41	274-61005-40	CEMENT 10ohm 10W	1	
** 2	F1-F4	225-22120-02	Relay RM2S-U DC24V, contact DC24V 5A	4	
3	RY2-RY6,RY8	225-22620-04	Relay RY24W-K DC-24V, contact DC24V 3A	6	

\*Recommended spare parts

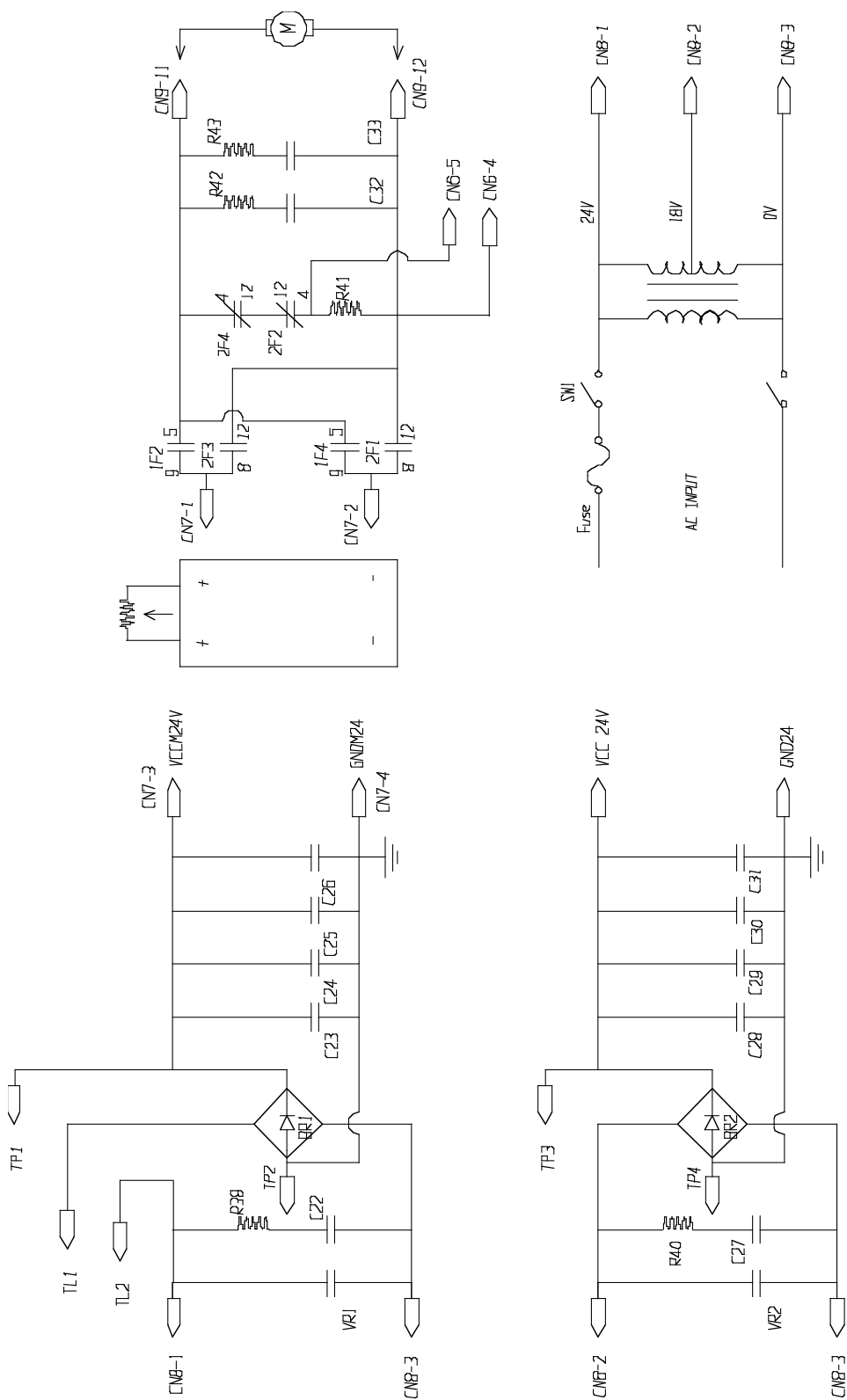
\*\*Consumables

\*\*\*Options

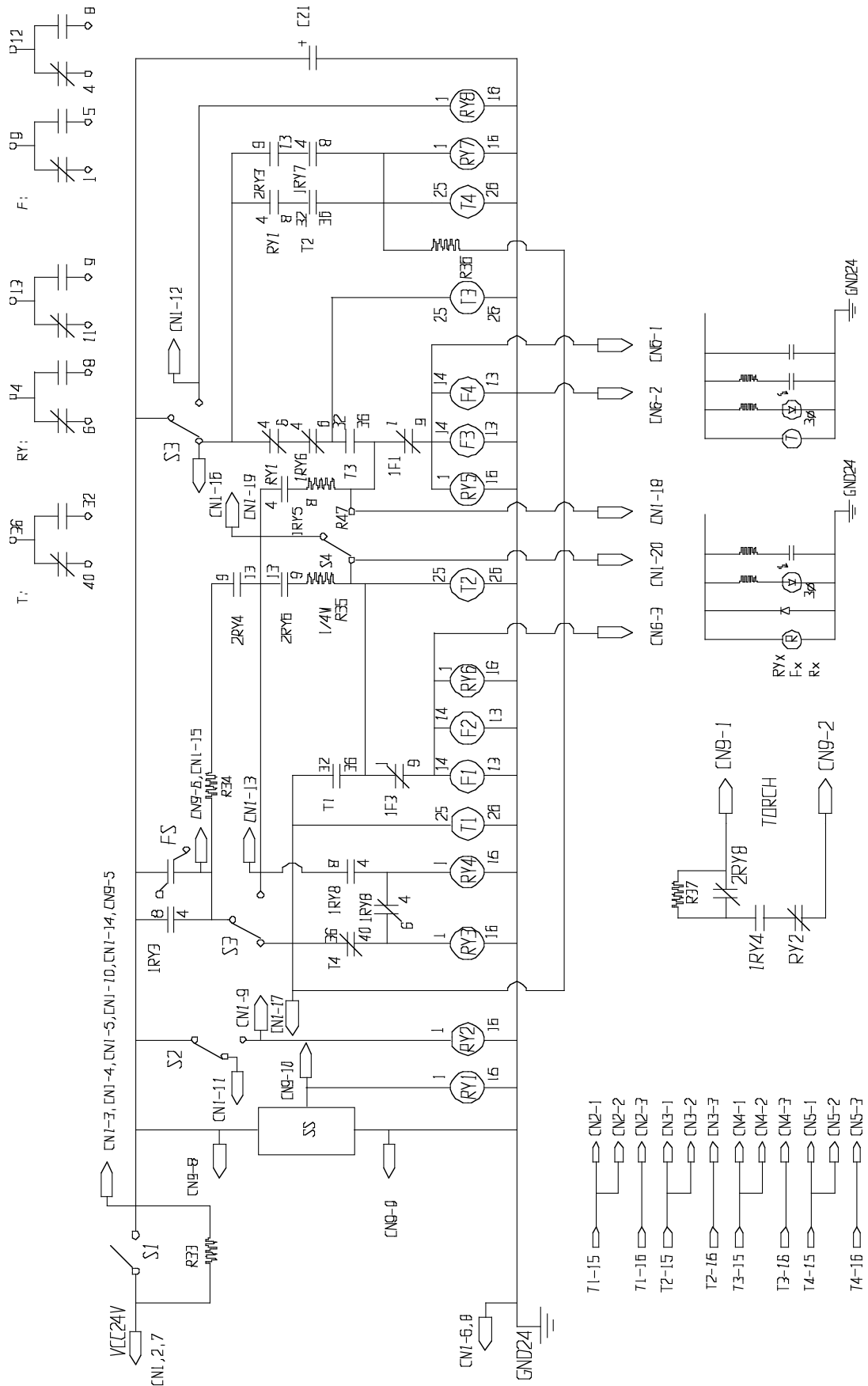
### 4.3 Part List – Relay Board



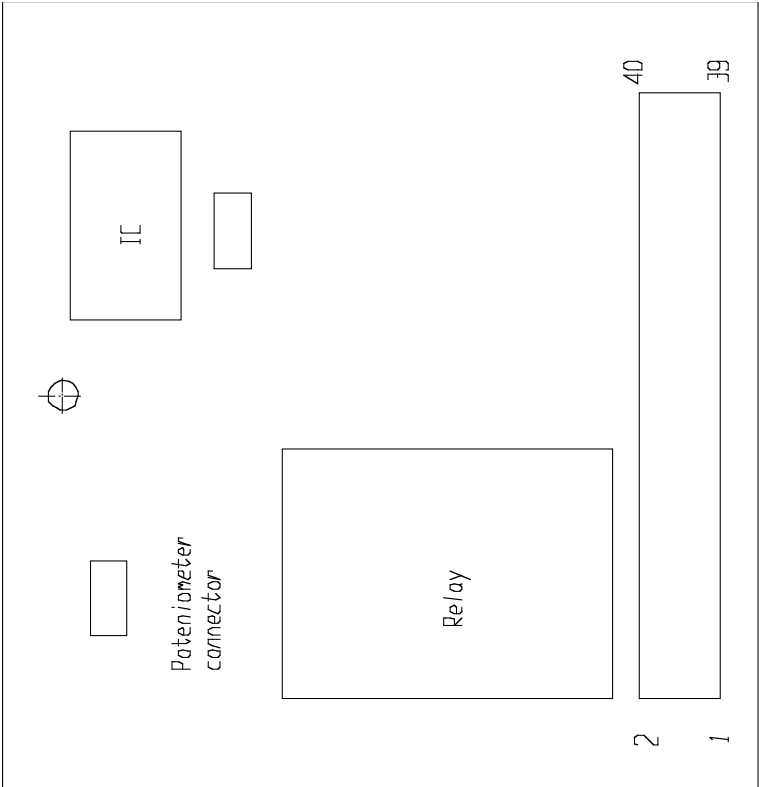
## 5.1 Control Circuit



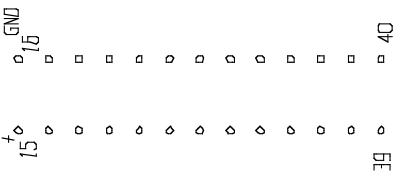
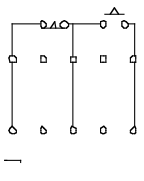
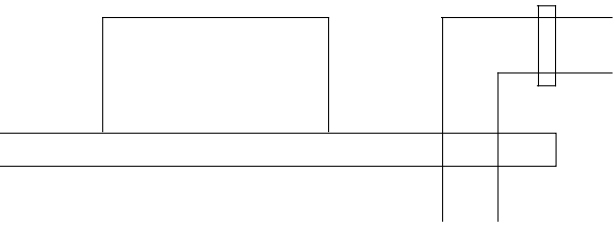
# 5.1 Control Circuit



# 5.1 Control Circuit

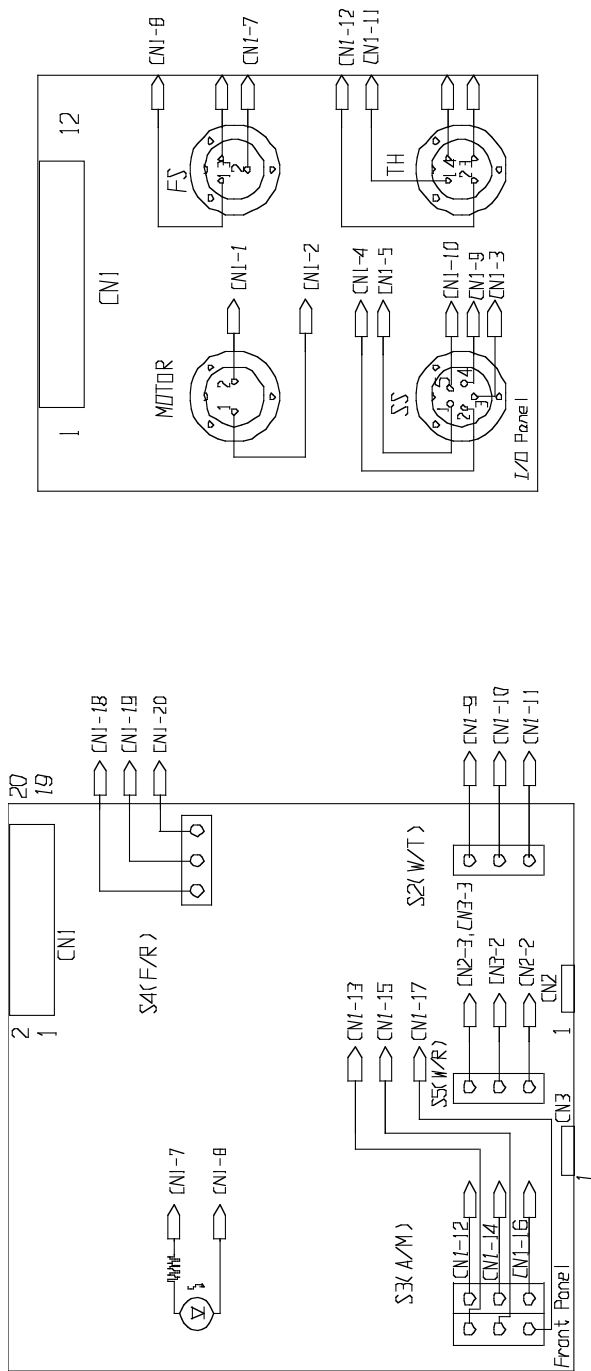


2X20 connector TOP VIEW



Timer connector pin assignment

## 5.1 Control Circuit



VCC24: CN1-3,4,5,10,14  
 GND24: CN1-6,8

