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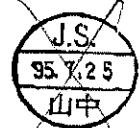
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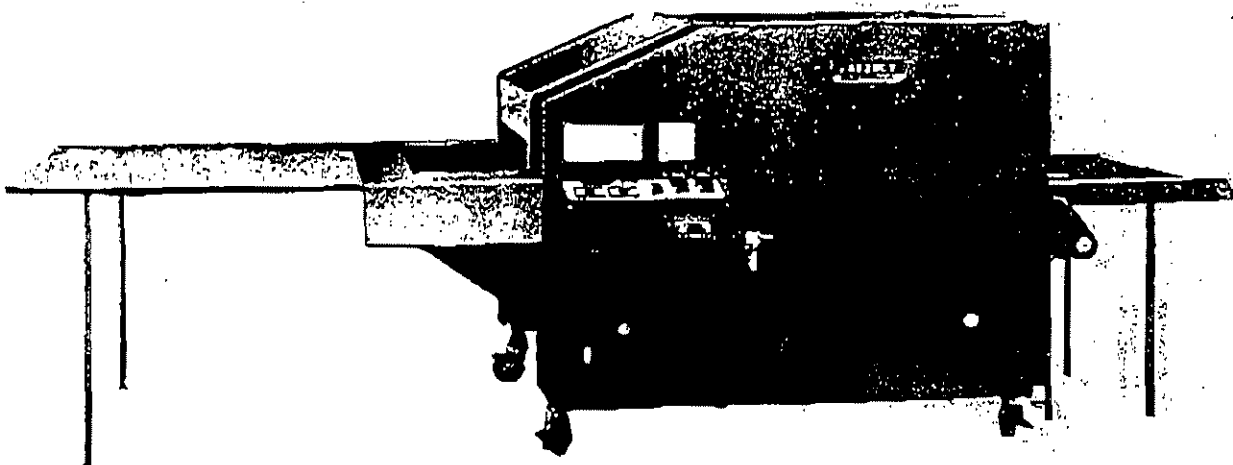
JSF-900 SERIES
Continuous Fusing Machine

**Instruction Book
& Parts List**



~~J.S. 山中~~

JSF-900 取扱の内、先租送信センター分 FAX 52 封
(P1~P8.) 以上よりレター版へ 52 封。



TOKYO JUKI INDUSTRIAL CO., LTD

JUKI SINGAPORE PTE LTD
TECHNICAL SECTION

Precautions in installing the machinery

- (1) Since this machine draws 11 kw of power, it should be connected to a 3-phase power supply according to the working voltage. (see table below)

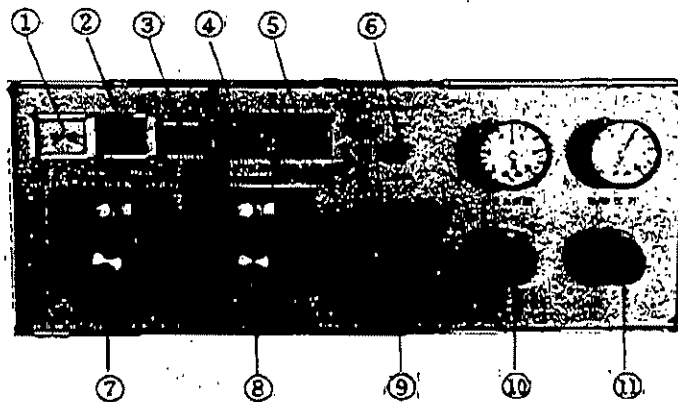
Voltage (V)	200	220	346	380	415	440
Current	33A or more	30A or more	19A or more	17A or more	16A or more	15A or more

- (2) This machine is air-driven. Since an air pressure of 6 kg/cm² of more is required, it should be connected to an air supply facility in which the air pressure under a fluctuating load will not drop below 6 kg/cm².
- (3) Since this machine is heavy, it must be installed on a very strong, level floor.

How to Operate the Machine

[1] Starting

- (1) Turn the power switch on the lower part of the right side ON. The power on lamp ① on the control panel will light up.
- (2) Set the pressure control ⑪ on the control panel to 8 kg/cm².
- (3) When the start pushbutton switch ③ is pressed the start lamp ③ lights up.
- (4) When the heating time setting knob ⑨ is turned, the teflon belt starts to run.
- (5) Set the front ⑦ and rear ⑧ temperature controllers to correspond to the material. A green lamp will light up when electric current is flowing through the heater; at other times a red lamp will light up. It takes ⑩ to 15 minutes until the heater temperature stabilizes (at 150°C). Check to see that the upper deviation indicator inside the temperature controller reads 0 before using the machine.
- (6) Set the pressure control ⑩ on the control panel to the necessary air gauge pressure. To convert between unit pressure and gauge pressure use the pressure conversion table on top of the control box.
- (7) When pressure switch ⑥ is turned ON, pressure is applied. When pressurization is not needed this switch should be OFF.

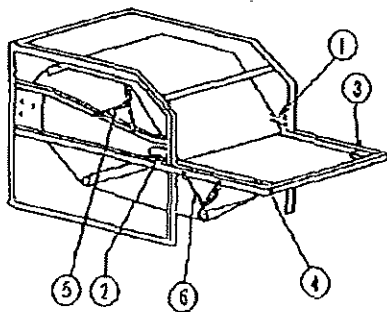


- ① power lamp
- ② emergency lamp
- ③ starting lamp and switch
- ④ idling lamp
- ⑤ stop lamp and switch
- ⑥ pressure switch
- ⑦ upper (front) temperature controller
- ⑧ lower (rear) temperature controller
- ⑨ heating time
- ⑩ pressure adjustment
- ⑪ control pressure

- [2] Stop
Press stop switch (5) to stop the machine in an emergency. Stop lamp (5) will light up.
- [3] Idling
[1] When the power switch is turned OFF at the completion of operations without pressing emergency stop switch (5), idling lamp (4) lights up. Only the heater goes off; the belt continues to run for a predetermined time (30 minutes) after which it stops automatically.
[2] During idling it is important that pressure switch (6) be OFF.
- [4] Emergencies
[1] When the belt meanders abnormally, if the control pressure has dropped to 5 kg/cm² or below then the emergency lamp comes on and the belt stops.

How to adjust the belt when it meanders abnormally

- When the belt meanders abnormally the emergency lamp on the control panel (control panel Figure 2) lights up and the belt stops. In such a case it should be adjusted according to the following procedure.
- Check to see whether it is the upper or lower belt that has been meandering abnormally. If it is the upper belt, adjust meandering control adjustment bolt (5); if it is the lower belt, adjust meandering control adjustment bolt (6). Next, if the meandering is taking place on the left side (the adjustment bolt side) turn the adjustment bolt so that it becomes longer; conversely, if the meandering is taking place on the right side turn the adjustment bolt so that it becomes shorter.
 - Next, press the control limit switch lever (1) to (4) for the location where the meandering is occurring toward the belt. This will cause the belt to start running; keep pressing until the belt returns to the correct position (until it is centered on the roller). For example, in the case of the upper belt meandering to the right, press lever (1).
 - When the belt has started to run normally, look at how the belt runs on the roller and check to make sure that the meander control is being applied equally on both the right and left sides. If it is too far to one side, perform a fine adjustment by turning the adjustment bolt again.



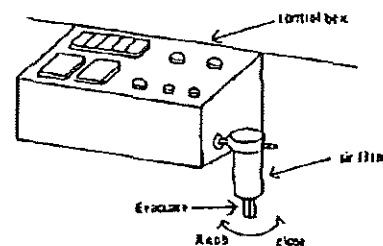
- Limit switch lever for control of the upper belt on the right side of the machine
- Limit switch lever for control of the upper belt on the left side of the machine
- Limit switch lever for control of the lower belt on the right side of the machine
- Limit switch lever for control of the lower belt on the left side of the machine
- Upper belt side meander control adjustment bolt
- Lower belt side meander control adjustment bolt

Precautions in Use

- Adhesion test
 - Before starting operations always perform an adhesion test to make sure that nothing is loose.
 - If the temperature is too high, the cloth can be damaged and the belt can become dirtier than normal, shortening the life of the belt, so be careful that these conditions do not occur.
 - If the temperature is too low, adhesion will be poor.
- Heating time setting
 - Avoid use inside of the red lines. It can cause a breakdown.

Everyday Inspection and maintenance

- Air filter
The air filter removes dirt and water from the air that is supplied. Since water accumulates in the cup it must be emptied regularly. This can be done by turning the bottom knob.



- Cleaning the belt and keeping it clean
 - If the belt becomes dirty with adhesive, wipe it thoroughly with a soft cloth. If it is very dirty, clean it with alcohol spray or teflon liquid. (Be careful that teflon liquid does not get in underneath the belt; it can cause the belt to slip.)
 - To prevent the belts from getting dirty spray the entire surfaces of both the upper and lower belts 3 times every day.
- Scraping plate
If the efficiency of scraping becomes poor during up in the scraping plate and remove the adhesive and scraps of cloth sticking to the teflon edge using a soft cloth. If the teflon edge has been scratched, sand it down with fine sandpaper until it fits the belt exactly.
- Belt cleaner
Inspect the belt cleaner every day. If part of it gets very dirty, cut the cloth off of that part. Polyester cloth is the best material to use for cleaner cloth.

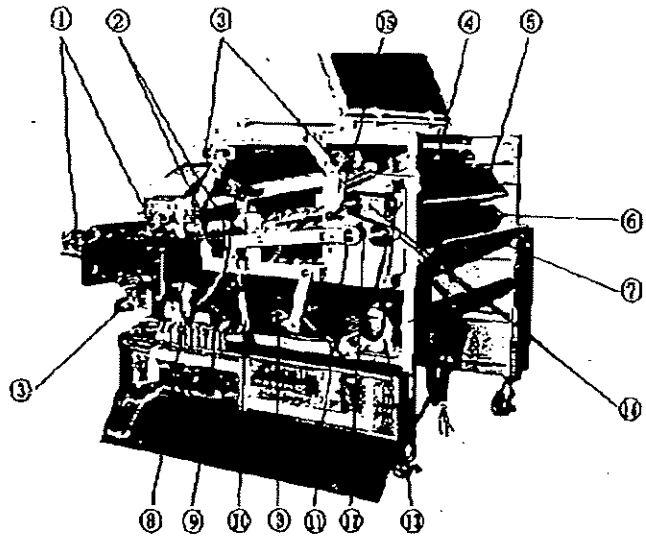
Specifications

Item	Specifications
adhesion width	500 mm
adhesion length	no limit
pressurization method	air-driven silicon rubber roller pressurization
pressure	0.5 kg/cm ² - 4 kg/cm ²
heating method	heater 10.8 kW
heating time	50 Hz: 5 ~ 28 sec 60 Hz: 4 ~ 24 sec
heating temperature	ready state temperature 200°C
belt speed	50 Hz: max. 10m/min 60 Hz: max. 11.7 m/min
belt control method	air method, meander control method
motor	variable speed motor IECM 200V
dimensions when installed	width 1655 x length 3165 x height 1230
weight	325 kg

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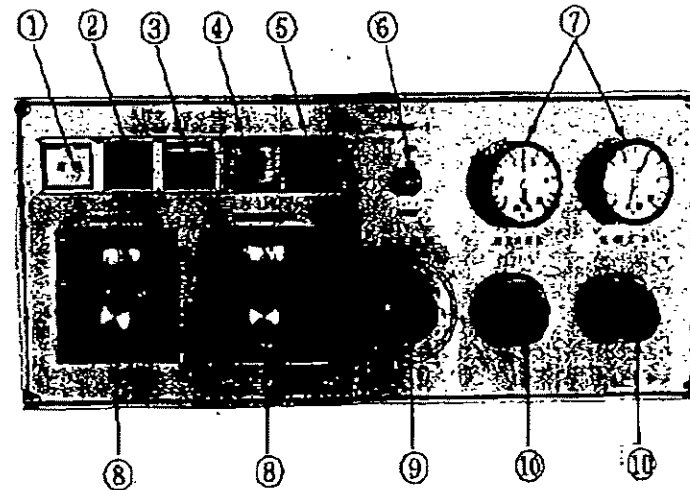
Part List

[1] Main part



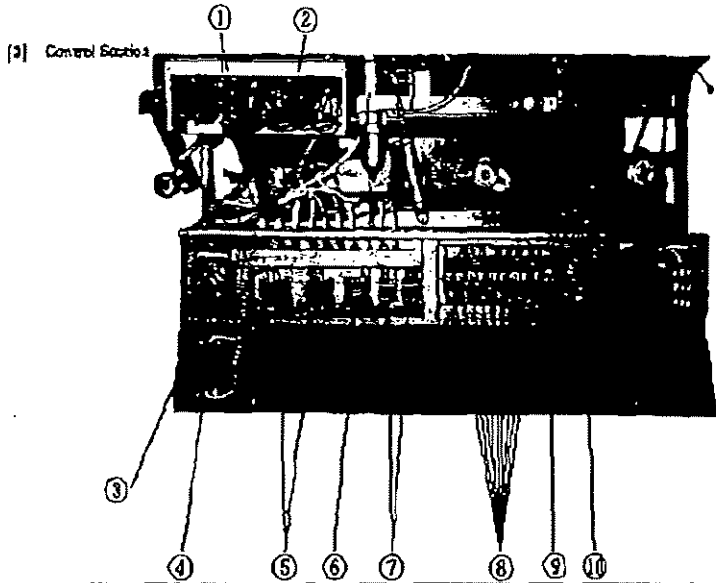
Part number	Part name	Quantity	
①	PBF20628026	Pillow type unit	4
②	P1401008000	Motor	12
③	PBF20327018	Flange-type unit	8
④	P1801098000	Upper belt	1
⑤	P2000298000	Upper scraping edge	1
⑥	P2017717000	Scraping edge	1
⑦	P1802098000	Lower belt	1
⑧	PAF 02160000	Air filter	1
⑨	PAC030325A9	Meander control cylinder	2
⑩	PAC03005080	Press cylinder	2
⑪	PBF26347017	Flange-type unit	2
⑫	P2212098000	Press roller	1
⑬	P6801098000	Variable speed motor	1
⑭	PBF25991103	Flange unit	4
⑮	PBF20780027	Flange unit	2

[2] Control panel



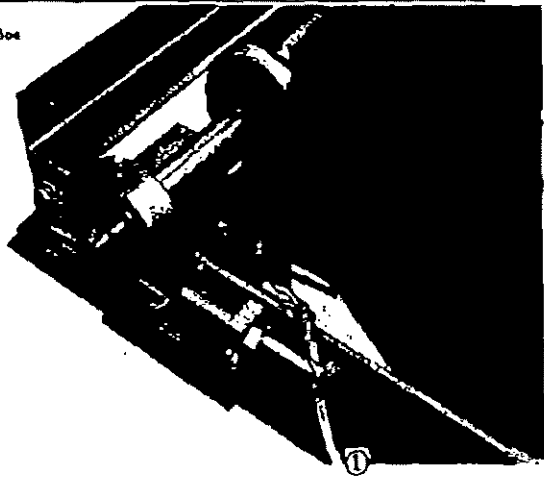
Part number	Part name	Quantity	
①	P590103A000	Indicator lamp (power supply)	1
②	P590203A000	Indicator lamp (emergency)	1
③	P570203A000	Illuminated pushbutton switch (start)	1
④	P5901098000	Indicator lamp (idling)	1
⑤	P570109A000	Illuminated pushbutton switch (stop)	1
⑥	PAVD1160000	Air valve	1
⑦	PAG01140000	Manometer	2
⑧	P6702093000	Temperature controller	2
⑨	P6901098000	Pressure sensor	1
⑩	PAP01160000	Pressure reduction valve	2

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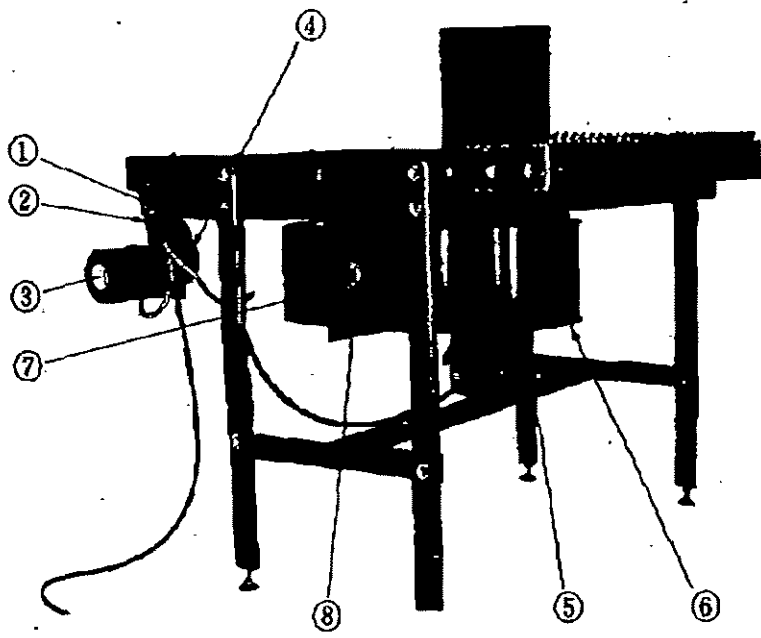
Part number	Part name	Quantity
① PVA01570000	Electromagnetic valve	1 set
② P680209A000	Pressure switch	1
③ P600109A000	Fuse	2
④ P650109B000	Circuit breaker for wiring	1
⑤ P6612720000	Electromagnetic contactor	2
⑥ P6551093000	Transformer	1
⑦ P6801093000	Electromagnetic contactor	2
⑧ P610109B000	Relay	5
⑨ P555100A000	Solid state driver	1
⑩ P6812093000	Control panel (for meta.)	1

[4] Metering distribution section



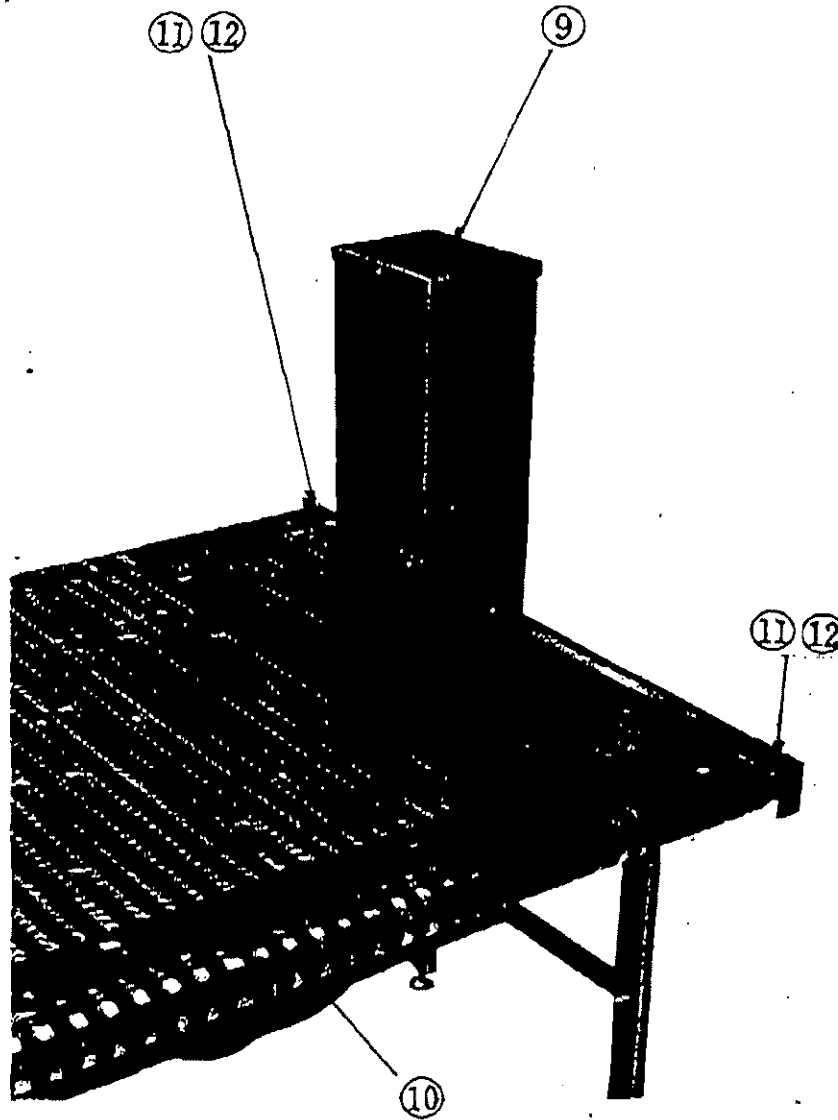
Part number	Part name	Quantity
① P580109B000	Limit switch	1

Rear Conveyor Part of JSF-900V with Vacuum No. 1



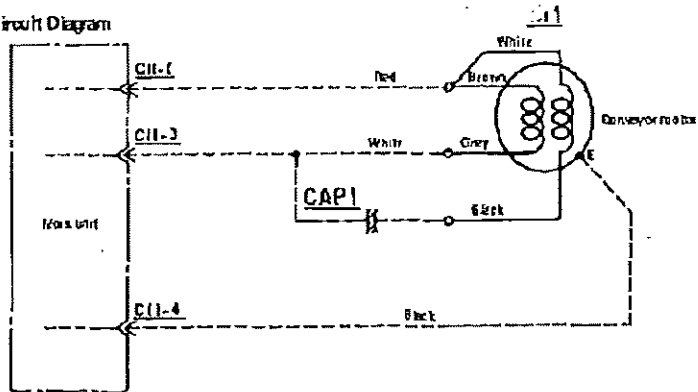
No.	Part number	Part name	Qty
①	P635290A000	phase advance capacitor	1
②	P6401093000	capacitor cap	1
③	P680199A000	small gasol motor	1
④	P220199A000	V belt (A)	1
⑤	JB47-041-1	sirocco fan	1
⑥	P2628E00N00	packing (G)	1
⑦	P2627E00N00	packing (H)	2
⑧	P2628E00N00	packing (J)	2

Rear Conveyor Part of JSF-900 With Vacuum No. 2



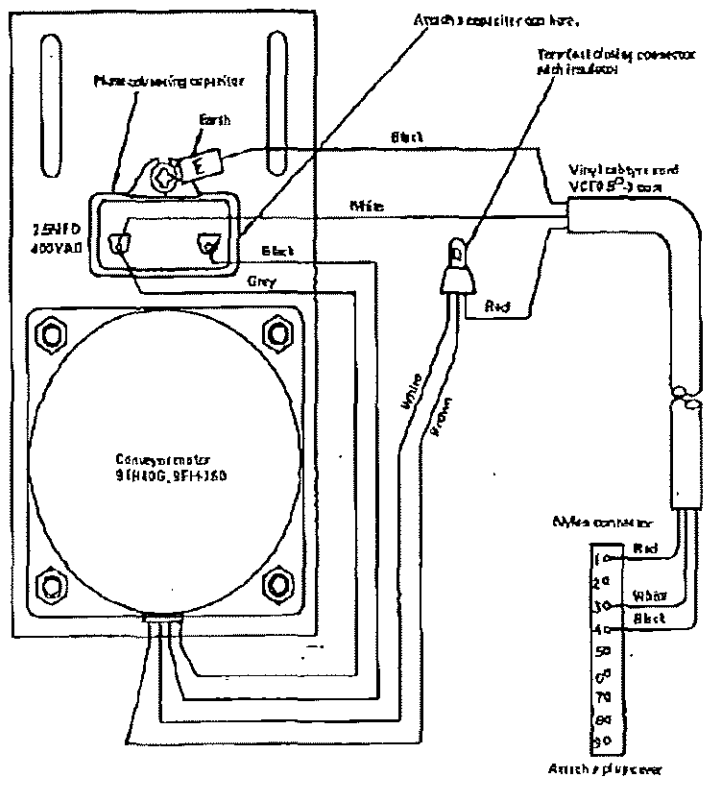
No.	Part number	Part name	Q'ty
9	P111209BV00	exhaust filter	1
10	P180109BV00	conveyor belt	30
11	PBR15351119	bearing (6202ZZ)	4
12	RC1380001KD	shaft stop ring (C15)	4

Control Circuit Diagram

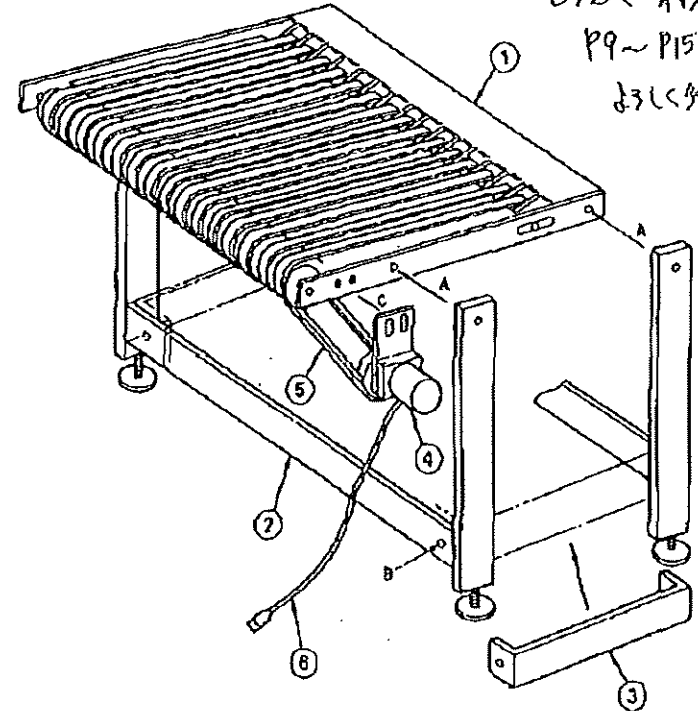


Symbol	Description	Maker	Type number
M1	Conveyor motor	Mitsubishi	91H-40B, 93H-30B (AC200V)
C1	Phase-advancing capacitor	Mitsubishi	2.5MFD (400VAC)
C11	Nylon connector (9-pole)	Nolex	1292P-1 (Male) 1292R (Female)

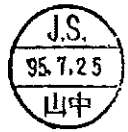
Machine Wiring Diagram



JSF-900-1
JSF-900-2 Rear Conveyor Assembly Illustration



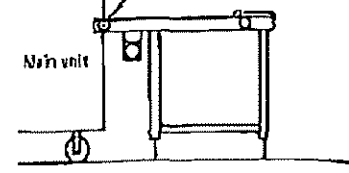
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33L 33P 取付け



①	Conveyor motor
②	Leg
③	Stay
④	Motor
⑤	V belt
⑥	Power cord (9-pole, male)
A	M6 x 35 Hexagonal headed bolt, M6 nut, Spring washer, Flat washer
B	M6 x 20 Hexagonal headed bolt, M6 nut, Spring washer, Flat washer
C	M8 x 15 Hexagonal headed bolt, M8 nut, Spring washer, Flat washer

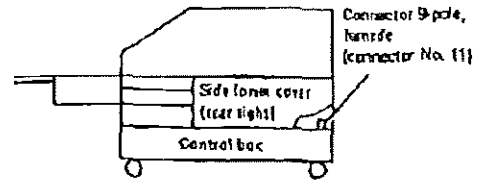
Connecting the rear conveyor to the main unit

1) Connector to the main unit
Fit the conveyor into the main unit so that the conveyor rollers end meets the rear end of the main unit frame.



2) Power connection

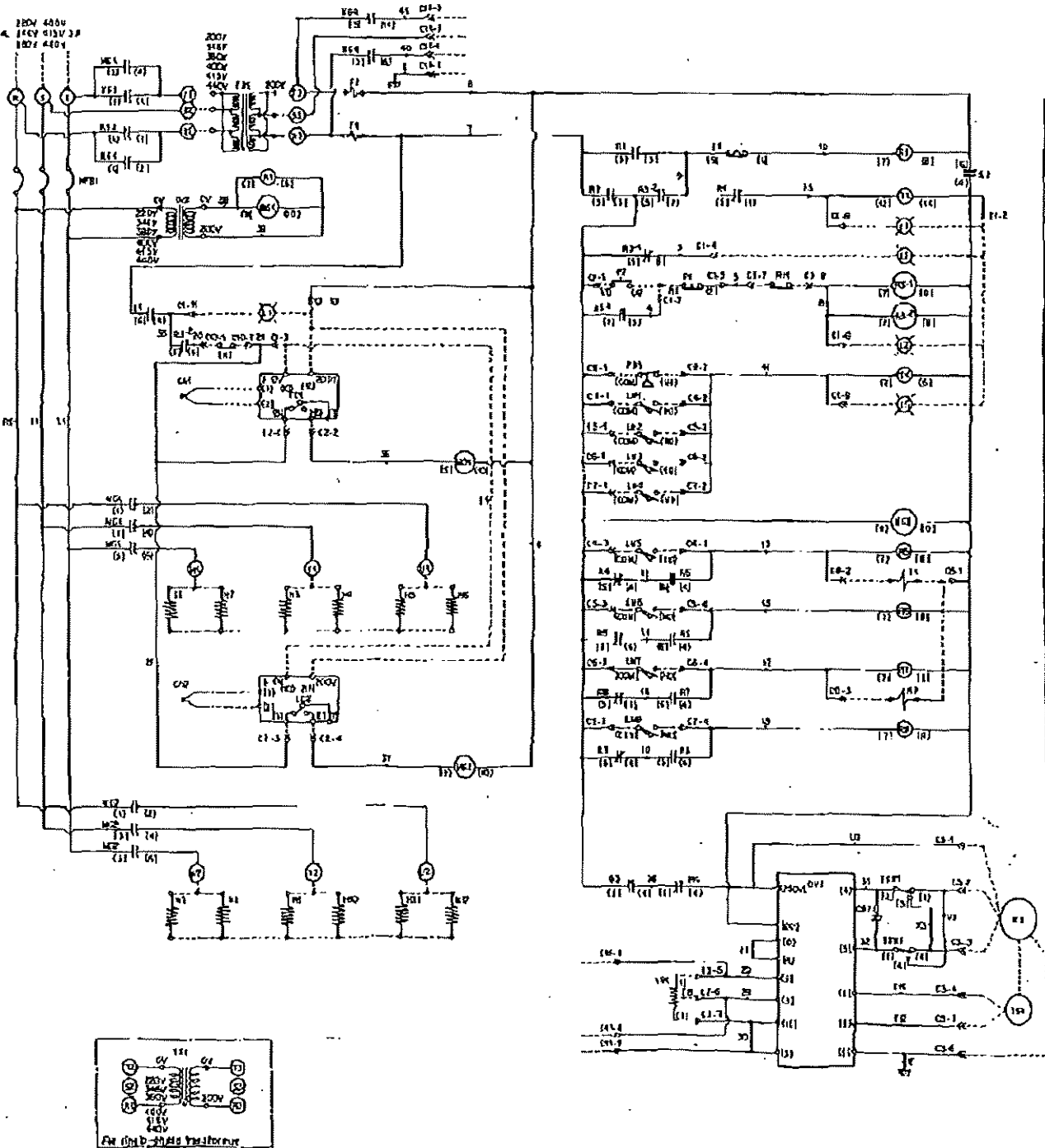
Connect power cord ⑥ to connector No. 11 located on the top of the control box (inside the side lower cover at rear right).



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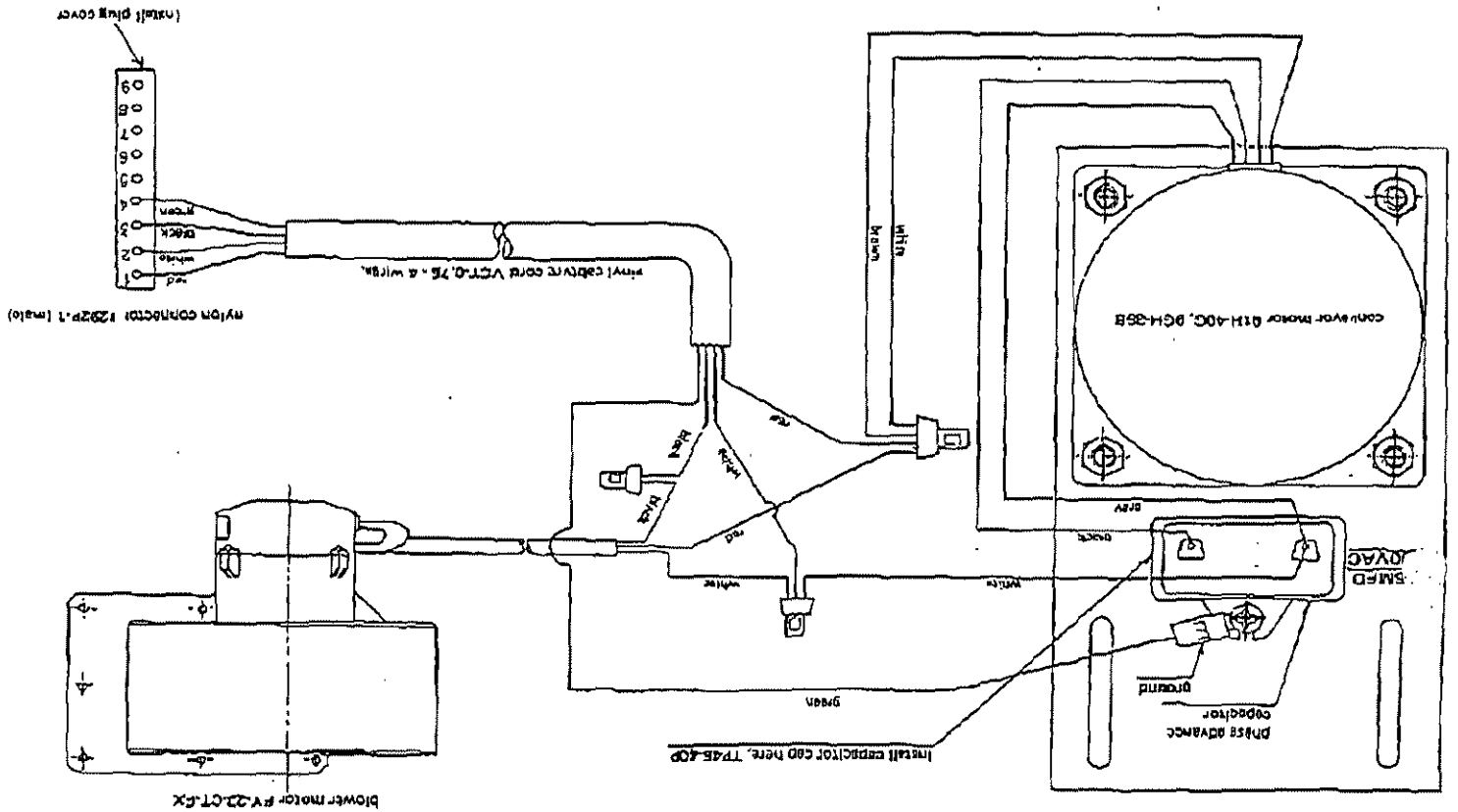
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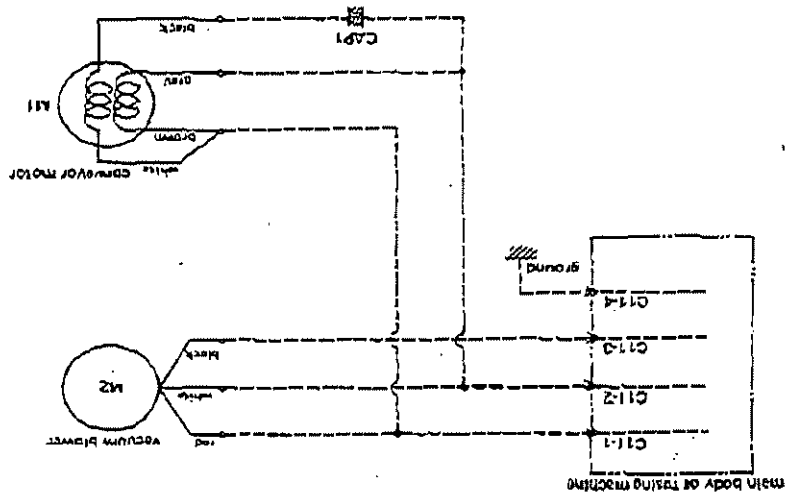
Part No.	Description	Company name	Model No.
ZED1	Neutral wire for wiring	Kepp	NO. 228 20A
F1-F4	Fuse	Seco	F1-F4 1A (AC220V)
L1	Power lamp	Wanyuan	PLD-20W (AC220V)
P1-L2	Foot pedal and lamp	Wanyuan	PLD-20W (AC220V)
T2-L3	Starting and stop lamp	Wanyuan	PLD-20W (AC220V)
L4	Warning lamp	Wanyuan	PLD-20W (AC220V)
L5	Emergency halt lamp	Wanyuan	PLD-20W (AC220V)
TH1	Thermal protector switch	Hitachi	TH1-200 (AC220V)
TP1	Overheat protection switch	Hitachi	TP1-200 (AC220V)
VS1	Speed selector switch	Hitachi	VS1-200 (AC220V)
UN1	Reverse switch (up/down)	Hitachi	UN1-200 (AC220V)
LR1	Reverse switch (up/down)	Hitachi	LR1-200 (AC220V)
LR2	Reverse switch (up/down)	Hitachi	LR2-200 (AC220V)
LR3	Reverse switch (up/down)	Hitachi	LR3-200 (AC220V)
LR4	Reverse switch (up/down)	Hitachi	LR4-200 (AC220V)
LR5	Reverse switch (up/down)	Hitachi	LR5-200 (AC220V)
LR6	Reverse switch (up/down)	Hitachi	LR6-200 (AC220V)
LR7	Reverse switch (up/down)	Hitachi	LR7-200 (AC220V)
LR8	Reverse switch (up/down)	Hitachi	LR8-200 (AC220V)
R1	Upper bobbin thread control relay	Hitachi	R1-200 (AC220V)
R2	Lower bobbin thread control relay	Hitachi	R2-200 (AC220V)
R3-R8	Relay control	Hitachi	R3-R8 (AC220V)
S1	Start button (up)	Hitachi	S1-200 (AC220V)
S2	Thermostat control	Hitachi	S2-200 (AC220V)
FC1	Foot pedal control (up)	Hitachi	FC1-200 (AC220V)
FC2	Foot pedal control (down)	Hitachi	FC2-200 (AC220V)
TH-L1	Thermal protector	Hitachi	TH-L1-200 (AC220V)
VS1	Speed selector switch	Hitachi	VS1-200 (AC220V)
UN1	Reverse switch (up/down)	Hitachi	UN1-200 (AC220V)
LR1	Reverse switch (up/down)	Hitachi	LR1-200 (AC220V)
TP1	Overheat protection switch	Hitachi	TP1-200 (AC220V)

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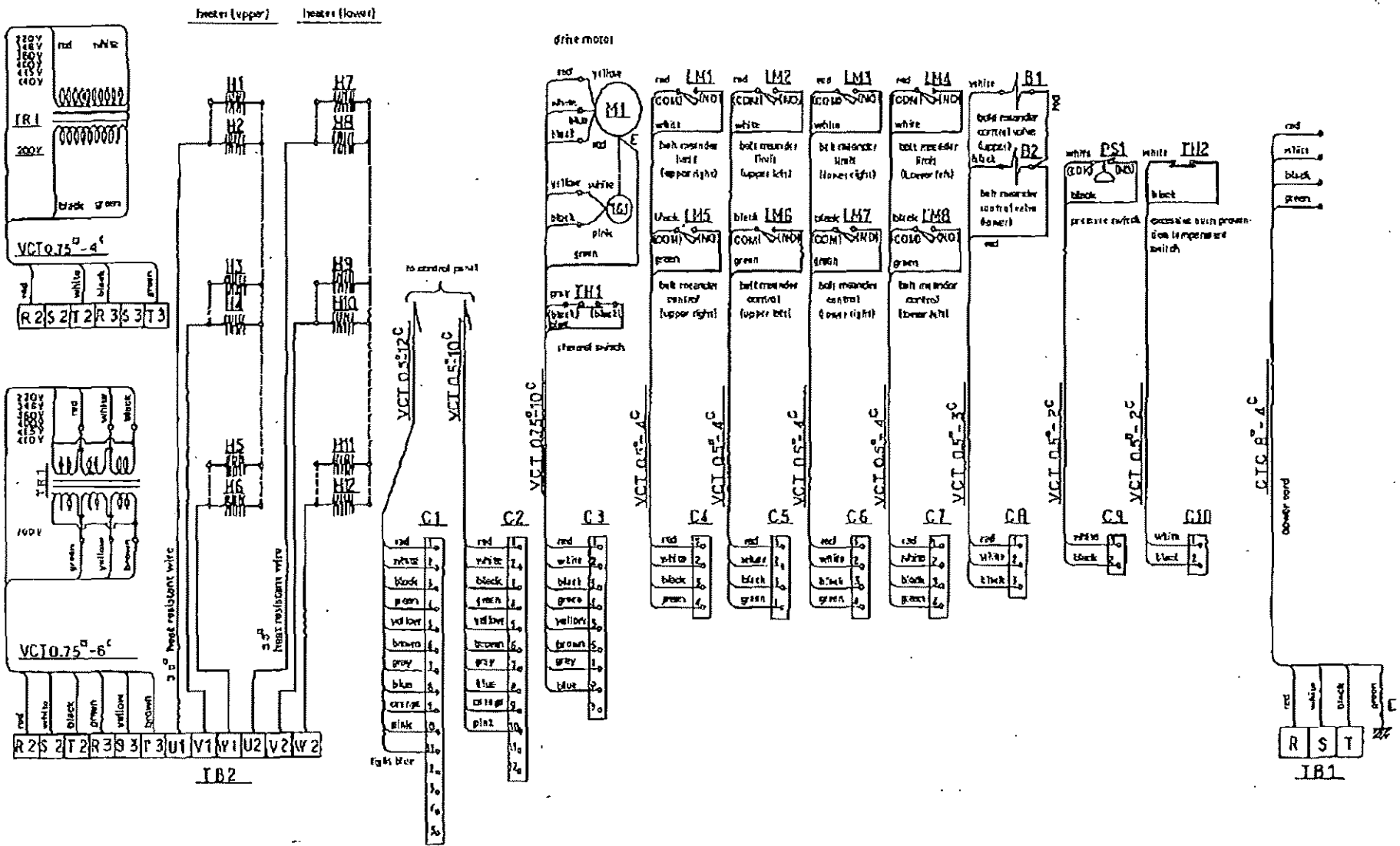


JSF-900V Wiring diagram

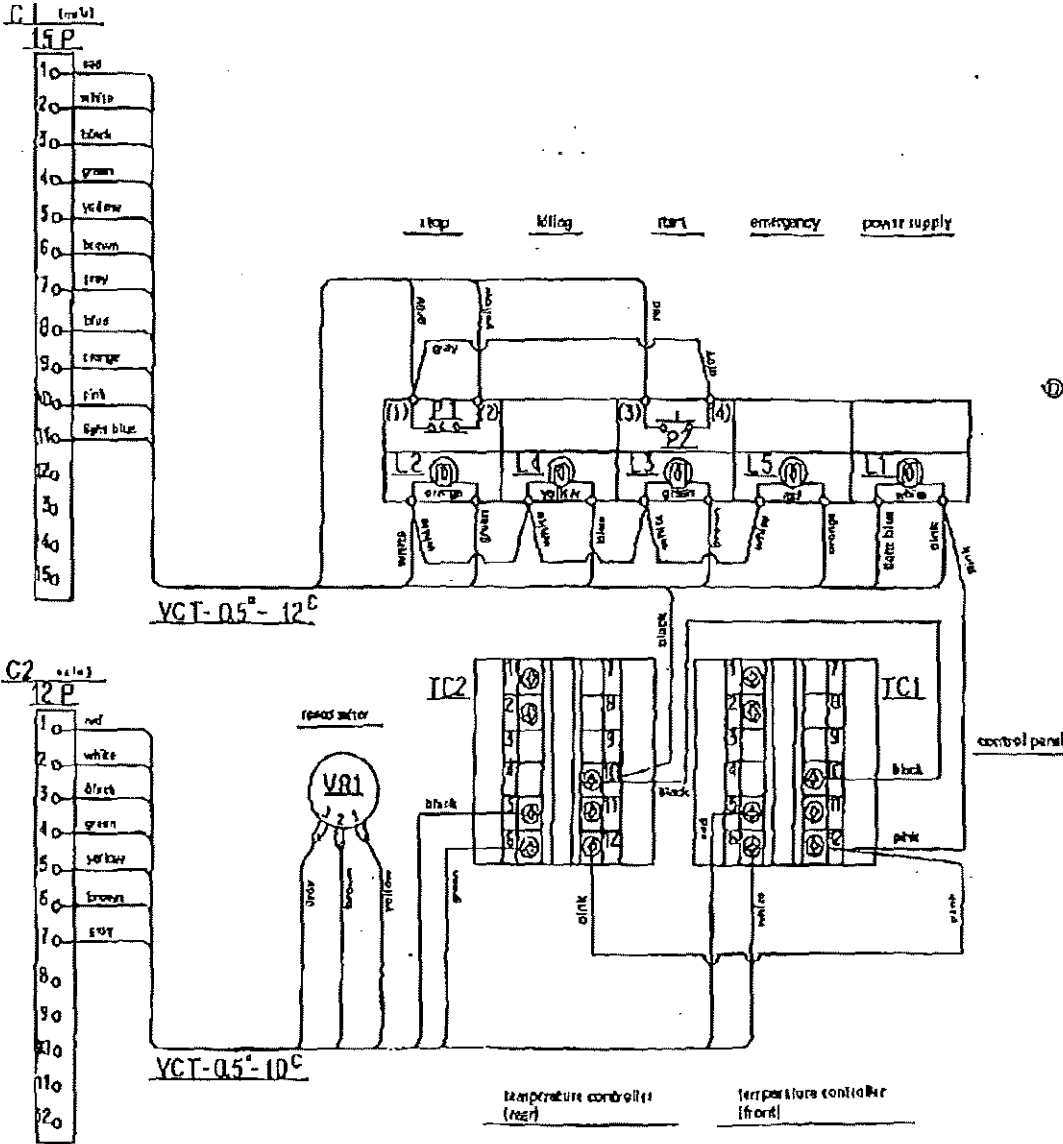
Symbol	Name	Manufacturer	Model number
M1	CONVEYOR MOTOR	MATSUSHITA	91H 40G (AC200V)
CAP1	Phase advance capacitor	MATSUSHITA	2.6 MFD (100 VAC)
M2	VACUUM BLOWER	MATSUSHITA	FY-23-CT-FX (AC200V)
C11	nylon connector	MOLEX	122P-1 (female)



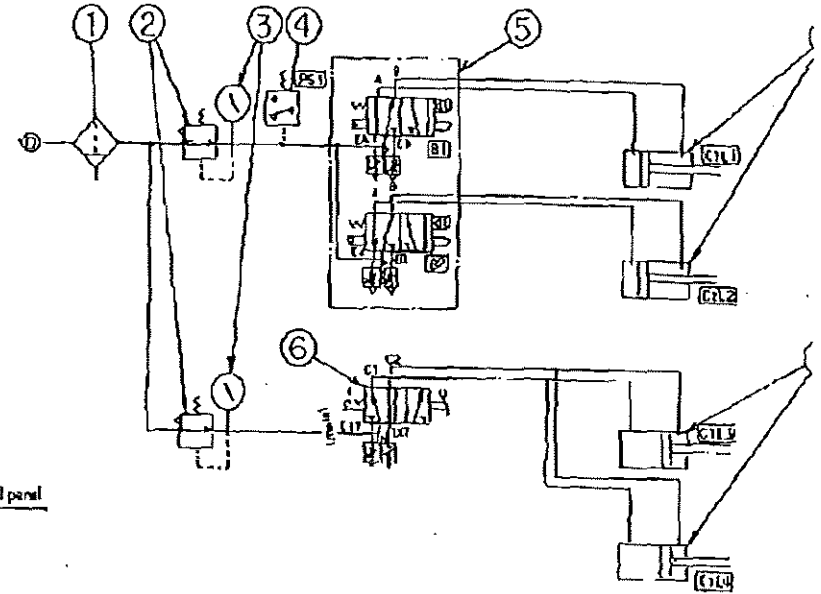
JSF-900 Wiring diagram



J5F-900 Wiring diagram



J5F-900 Pneumatic Circuit Diagram



No.	Part number	Part name	Qty
①	PAF02160000	air filter	1
②	PAP01160000	relieving valve	2
③	PAG01140000	pressure gauge	2
④	FE80208A000	pressure switch	1
⑤	PVA01510000	relatoid valve	1 set
⑥	PAV01160000	air valve	1
⑦	PAC030025A9	mezzner control cylinder	2
⑧	PAC030050B0	press cylinder	2

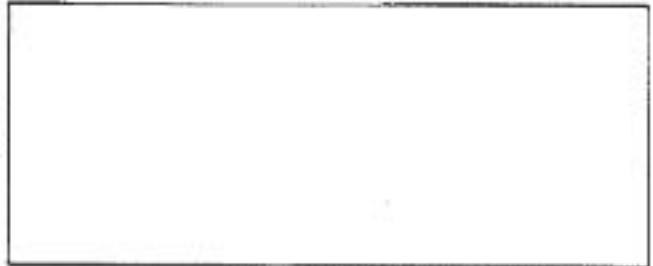
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