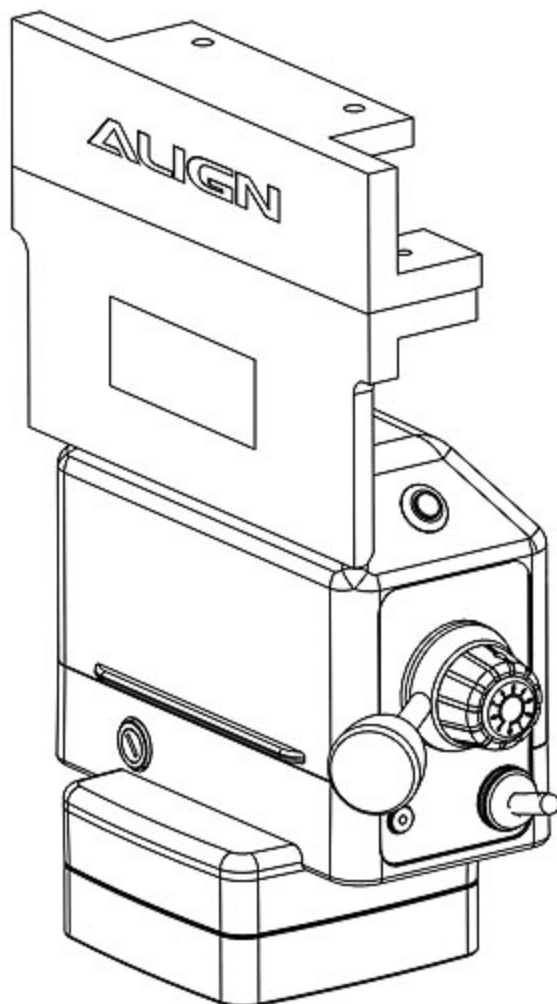


# ALIGN

## POWER TABLE FEED OPERATION MANUAL

**AL/CE-500D**



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### CONGRATULATIONS ON YOUR NEW PURCHASE OF OUR POWER FEED

Please read this manual carefully before installation and using it. It will also help you to solve some easy problems by yourselves. Hope our product will bring you more effective and joyful working.

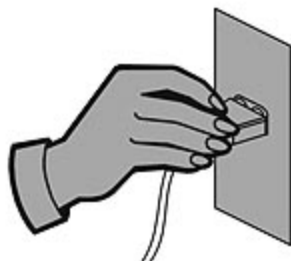
## SPECIFICATION

Model	R.P.M.	Max R.P.M.	Drive Gear Rate	Max Torque	Rated Voltage	Rated Current
AL-500D	0~270	270	2.8:1	560 in-lb	110V 50/60Hz	1Amp

**VOLTAGE AS 220V-440V HAVE TO ADOPT TRANSFORMER**

## WARNING

Please make sure if power supply be turned off before assembly, and avoid from accident caused during procedure of assembly.



Please don't disassemble for fixing or refitment and free from accident or break down caused by unhealth assembly.



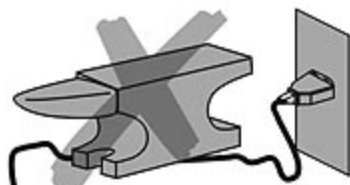
Please take apart the drill and remove worked item before assembly.



Please make sure input voltage for power feed as A.C.110 V and avoid wrong power then burn down circuit board, except A.C.110 V, please adopt the transformer.



Please adjust suitable length of cord and watch out the wiring, never pressure power cord by clog then ambroin broken cause short or spark.



Please don't set the power feed in excessive wet working zone and don't wash down the power feed by water or water shipped then cause short or spark.



# LONGITUDINAL FEED ASSEMBLY INSTRUCTION & FUNCTION DESCRIPTION

## A0102 CIRCUIT BREAKER

To protect the circuit from current overload. When the current passing the switch is over 3A for about 10 Seconds, the protective device will slip off automatically to break the circuit. Press down the red pusher of the protective device and the indicator will glow so as to continue the function.

## P01810-12 DIRECTION HANDLE

To control the driving direction of the Power Feed. Move the handle to right and the TABLE will move to right. Move the handle to left and the TABLE will move to left.

## C0509 ANTI-VANDAL SWITCH

The indicator LED will lit up when the power is on.

## A011399-12 BIG ADAPTOR

G0101A T20003-1 5/16X1"

## A011399A-12 SMALL ADAPTOR

T20003  
SCREW 5/16X1"

## A0106X DRIVE GEAR

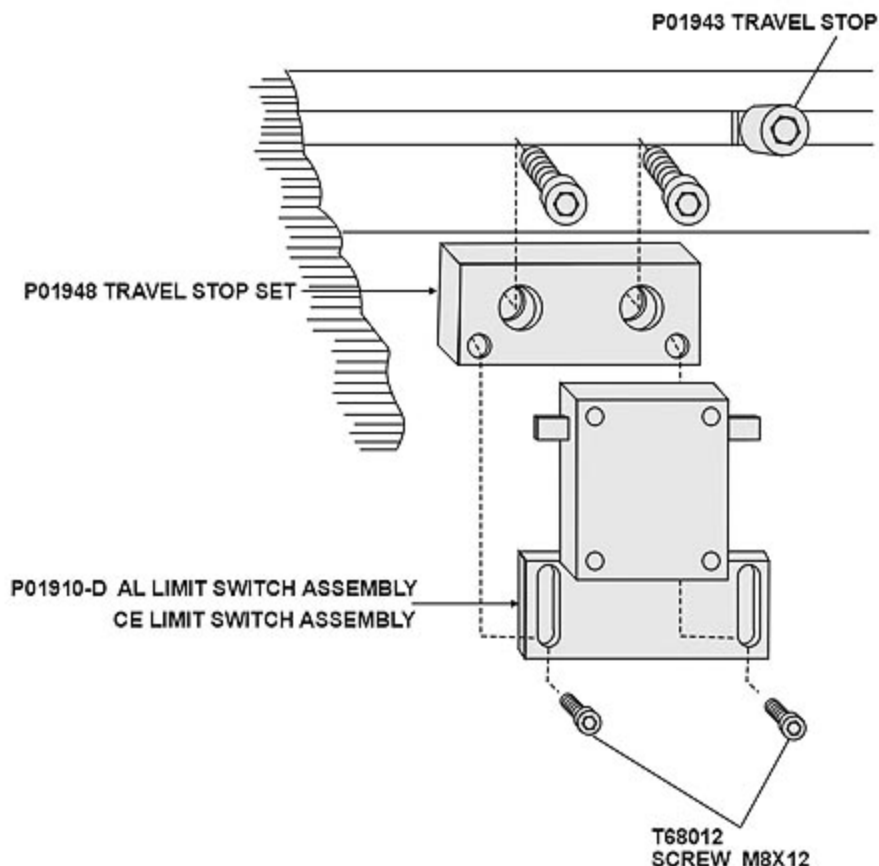
P01811-03 SPEED CONTROL KNOB.  
control the rotating speed of POWER FEED

## E0907 ON-OFF SWITCH

down A power service controller. Push the crank to the position ON to serve power and to the position OFF to stop power supply.

P01927  
GEAR COVER

# **ASSY-LIMIT ASSEMBLY INSTRUCTION & PROBLEM SOLUTION**



## **TROUBLE SOLUTION**

- When the POWER FEED doesn't work and the indicator doesn't glow:
  - 1) Check : If it is pluggd in.
  - 2) Check : If on-off switch is on.
  - 3) Check : If breaker is off the position.
- POWER FEED doesn't work and the indicator lights up:
 

Check : If the brush is normal.
- POWER FEED can only move to one direction:(Fig.1)
 

Check : If assy-limit switch is normal.
- Touch assy-limit switch POWER FEED in-between the table and unable to stop it.(fig.2)
 

Check : If assy-limit switch is normal.

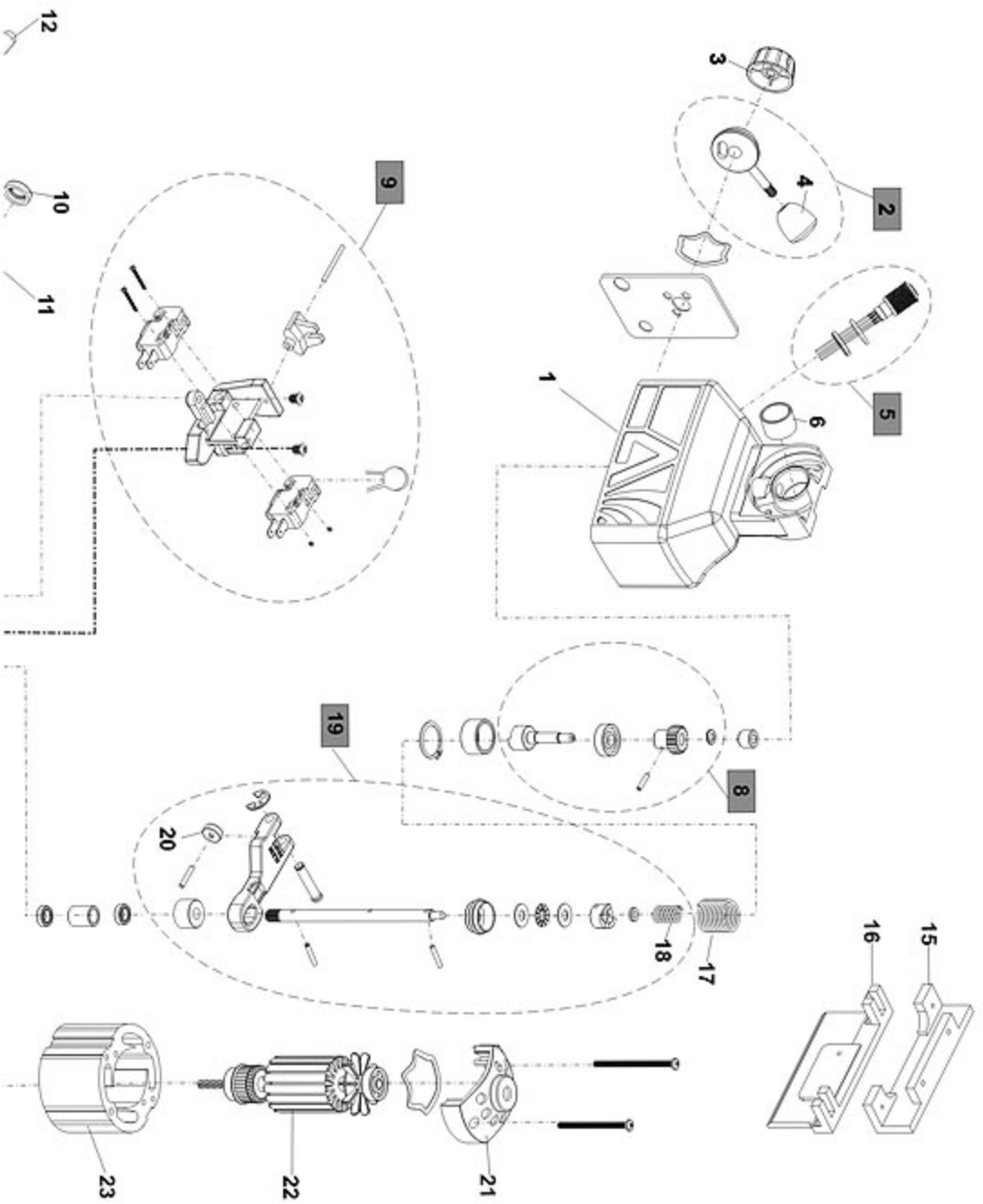
## CAUTION

1. It will damage the gear of power feed if you suddenly change the direction of power feed by pushing the direction control handle while the machine is under high-speed operation. If you intend to change the direction, please push the handle to the "off" position. Waiting until the machine is completely stopped, then push the handle to your intended direction.
2. Please make sure the position of the stop screw for your milling machine is keeping on "loose" status.
3. While the power feed is under operation, please don't change to use manual control the direction suddenly.

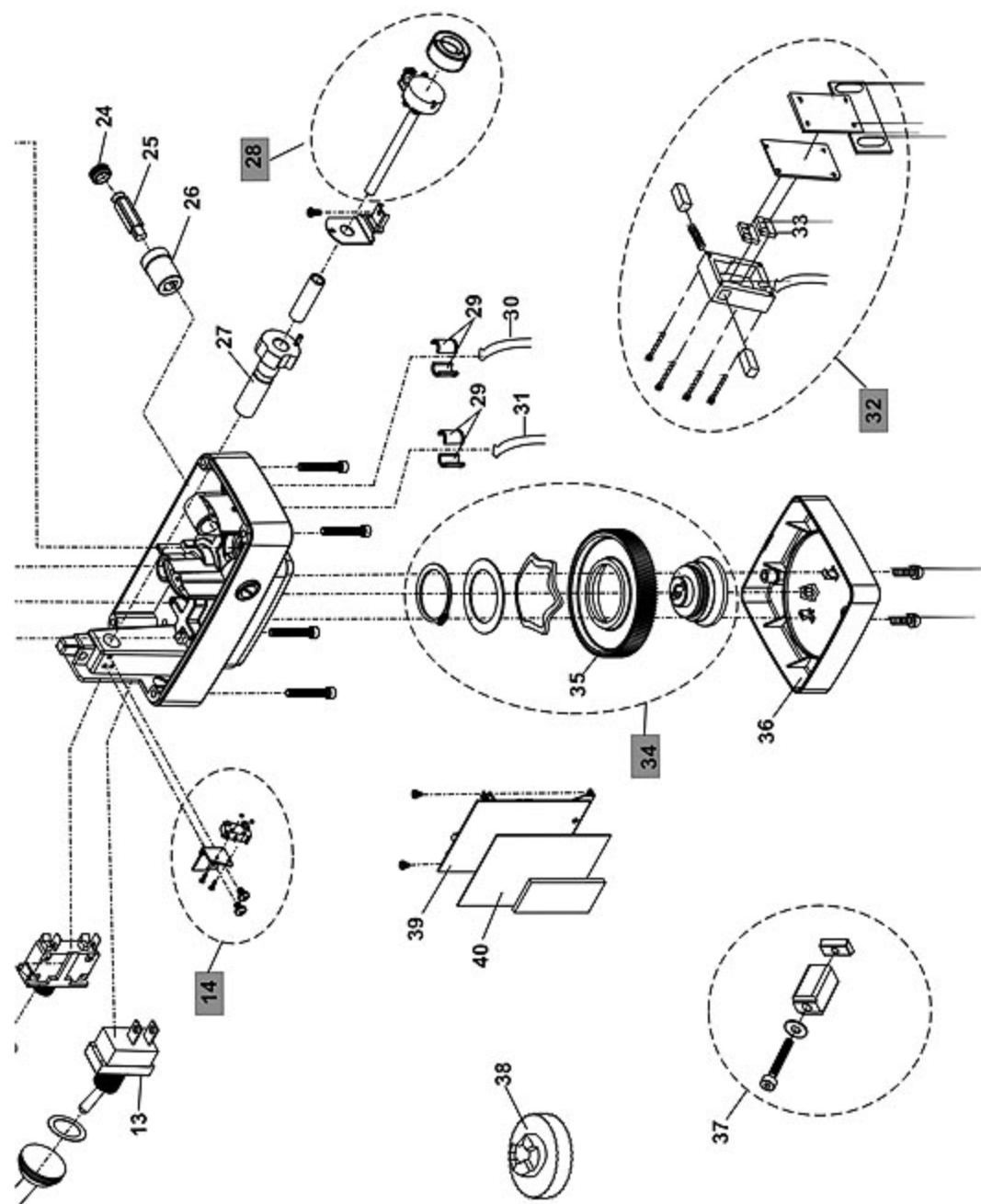
## PARTS LIST

NO.	PART NAME	PART NO.	SPECIFICATION	REMARK
1	AL/CE-500D TOP HOUSING	PT100-12		
2	180° CONTROL HANDLE	P01810-12		
3	SPEED CONTROL KNOB	P01811-03	Φ 35.5x Φ 29.9x19mm	
4	HANDLE KNOB	E0913-03	Φ 31.8x33mm	
5	ANTI-VANDAL SWITCH	C0509		
6	INNER RING	A50113-99D	Φ 32x15.2mm	
8	500D UPPER CLUTCH ASSEMBLY	PT-200D		
9	DIRECTION SWITCH ASSEMBLY	C0501-6V		
10	CAP OF CIRCUIT BREAKER	A0102-01		
11	CIRCUIT BREAKER	A0102	3.15A 125V AC	
12	CAP OF ON-OFF SWITCH	E0907-01	Φ 21X Φ 11X25mm	
13	ON-OFF SWITCH	E0907	R13-25A	
14	BRAKE SWITCH ASSEMBLY	C0508	6A 125V-250AC	
15	AL-500D SMALL ADAPTOR	A011399A-12		
16	AL-500D ADAPTOR	A011399-12		
17	SPRING FOR TOP HOUSING	A0112	Φ 11.5X Φ 1.4X20mm	

# SCHEMATIC DIAGRAM OF PARTS

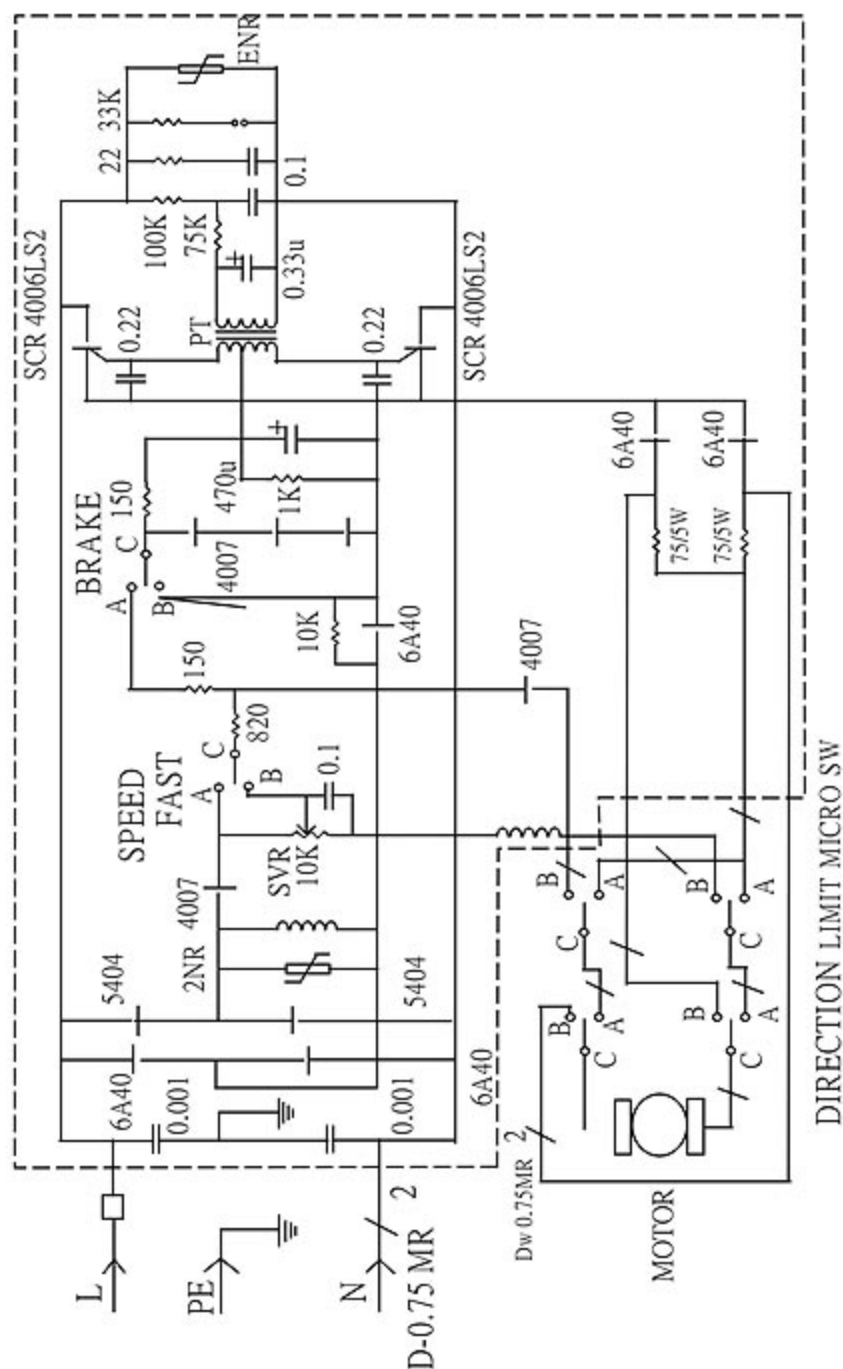


# SCHEMATIC DIAGRAM OF PARTS





# CIRCUIT DIAGRAM AL-500D

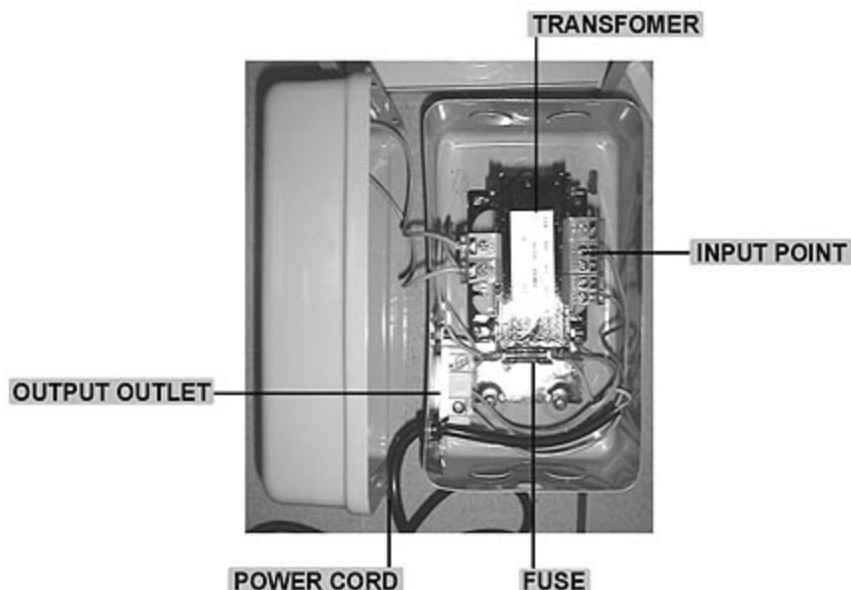


## HOW TO INSTALL TRANSFORMER OF TR-1(ONE OUTPUT)

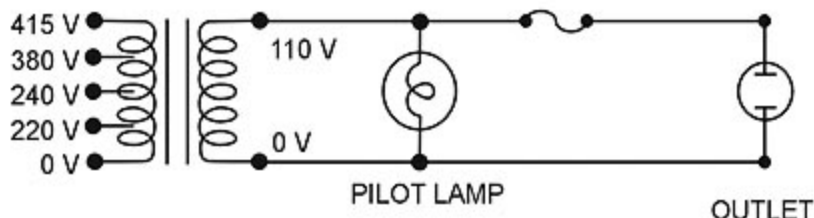
TRANSFORMER OF TR-1 IS USED FOR 220V, 240V, 380V AND 415V THEN TRANSFER TO 110V. ATTACHING POWER PILOT LAMP AND ONE OUTPUT OUTLET.

### ASSEMBLING GUIDE:

1. Make sure the voltage of working environment.
2. Choose the exact input point and well fix up.
3. Make sure whole screws of transformer are well locked.
4. Setting transformer on stable and dry wall.
5. Collecting cable and wire on the wire box of working place.
6. Keep from accident caused, don't disassemble and refit locked parts or wiring of transformer when assembly proceeding.



### CIRCUIT



## **TROUBLE SHOOTING**

### **THE POWER FEED DOES NOT WORK AND THE POWER INDICATOR DOES NOT GLOW :**

- 1.Ensure there is no problem with power supply.
- 2.Check if the circuit breaker on the power feed unit kicked out.
- 3.Check for proper contact at the ON-OFF switch.

### **THE MOTOR DOES NOT WORK WHEN PUSH DIRECTION LEVER TO EITHER LEFT OR RIGHT :**

- 1.Open power feed unit by loosening bottom 4 hex screws.
- 2.Check if the carbon brush is making proper contact with the armature or if carbon brush is all used up already.
- 3.Check that internal wiring to the printed circuit board are all connected.
- 4.Check that the potentiometer connections are intact and that it is functioning properly.

### **SPEED CONTROL ERRATIC OR ALWAYS AT HIGH SPEED ONLY :**

- 1.Check rapid micro switch. Make sure it is not stuck. If its position is too high up, lightly tap on it to lower.
- 2.Check V.R. is in good connection and proper function.

### **BREAKER ALWAYS KICKS OUT ON POWER FEED UNIT UNDER NORMAL USAGE :**

Short circuit in the armature, need to be replaced new armature.

### **CURRENT LEAKAGE :**

- 1.Check limits switch assembly for possible short.
- 2.Check armature by first removing the brush cap.
- 3.Measure for short with an ohmmeter across the carbon brush and the outer cover of the power feed unit.

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**<http://www.align.com.tw>**