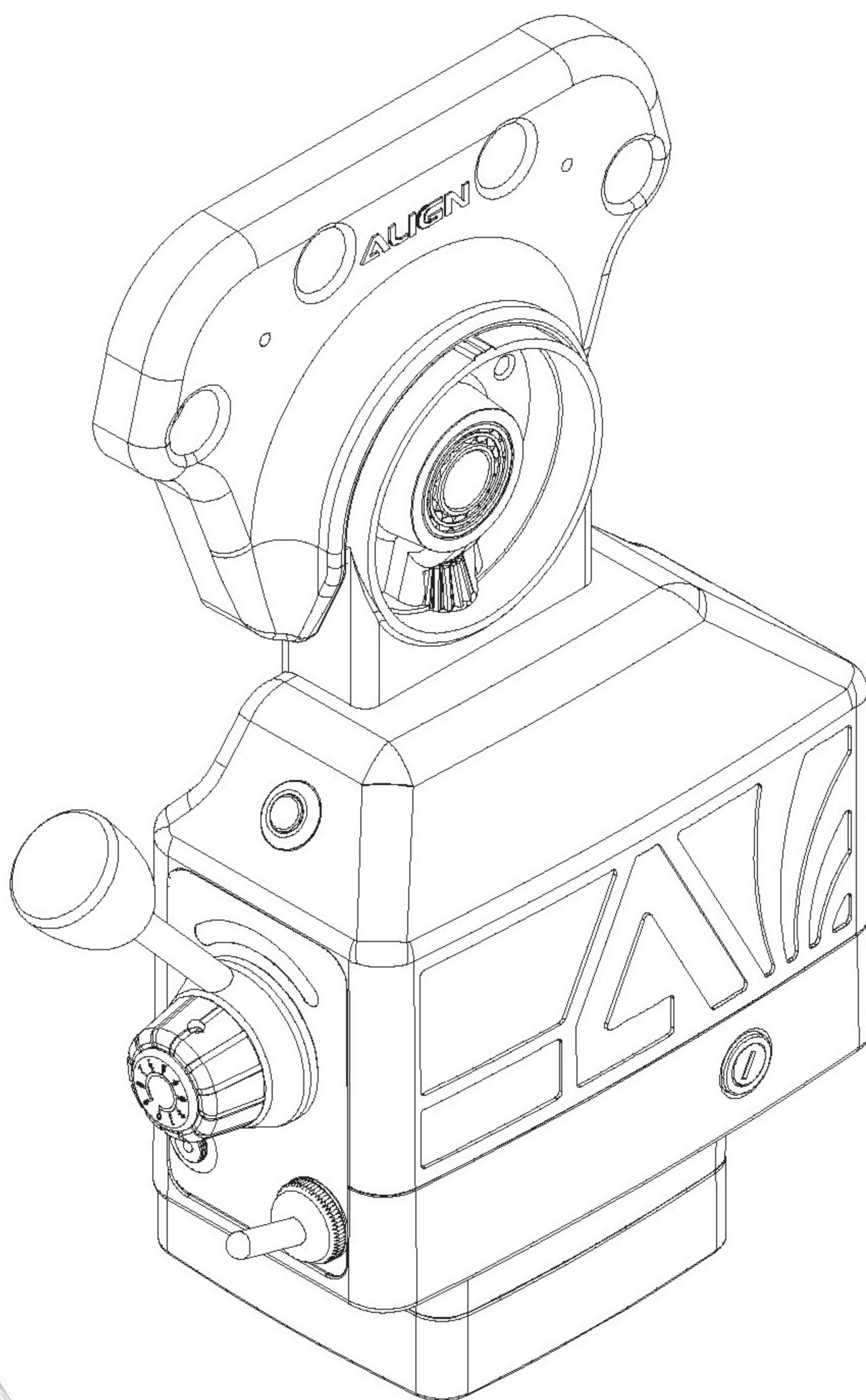


ALIGN

POWER TABLE FEED OPERATION MANUAL

AL/CE-500P



No.G00399

2021.Feb.22

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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.

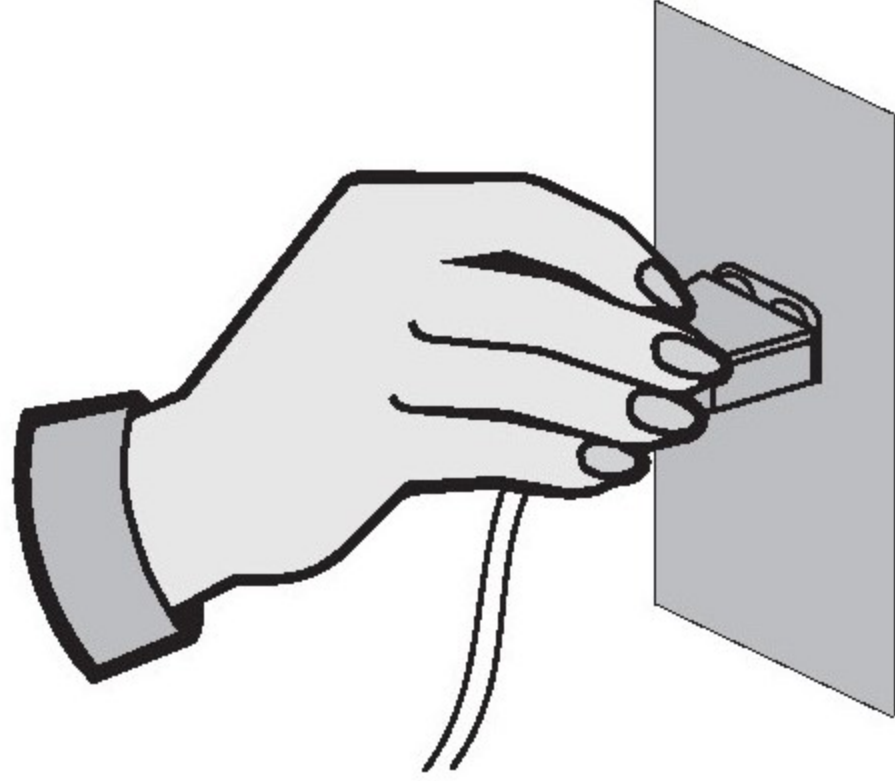
SPECIFICATION

Model	R.P.M	Max R.P.M	Bevel Drive Gear Rate	Max Torque	Rated Voltage	Rated Current
AL/CE-500P	0~160	160	21.4 : 4.8 : 1	780 in-lb	110V 50/60Hz	1Amp

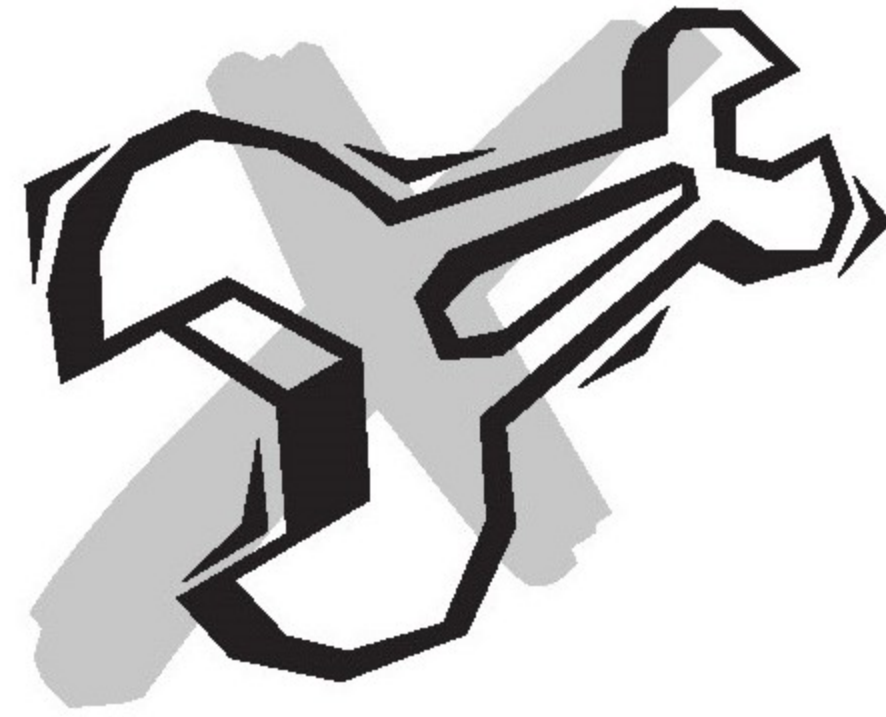
VOLTAGE AS 220V-440V HAVE TO ADOPT TRANSFORMER

WARNING

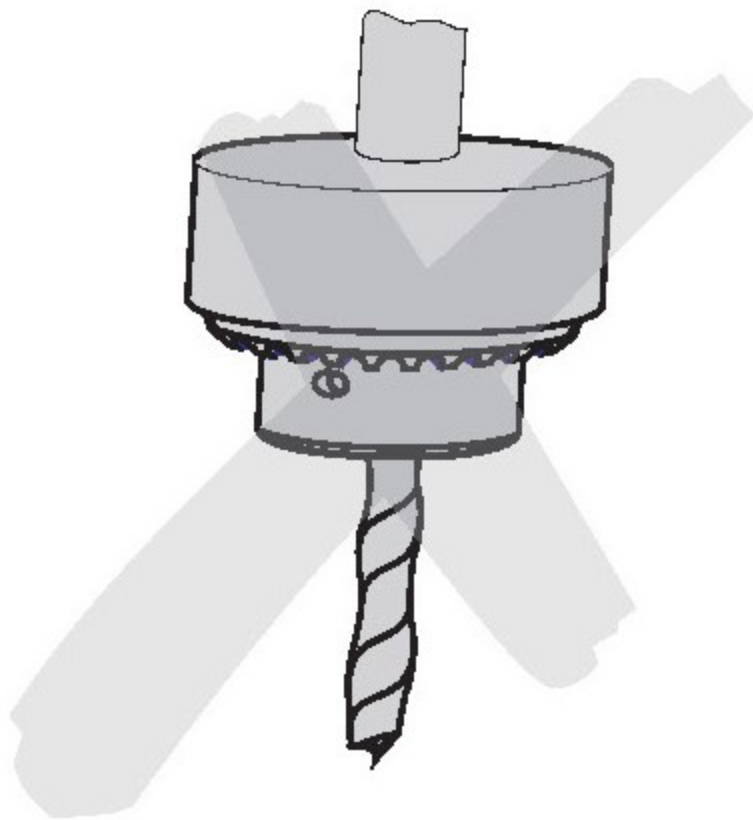
Please make sure if power supply be turned off before assembly, and avoid from accident caused during procedure of assembly.



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



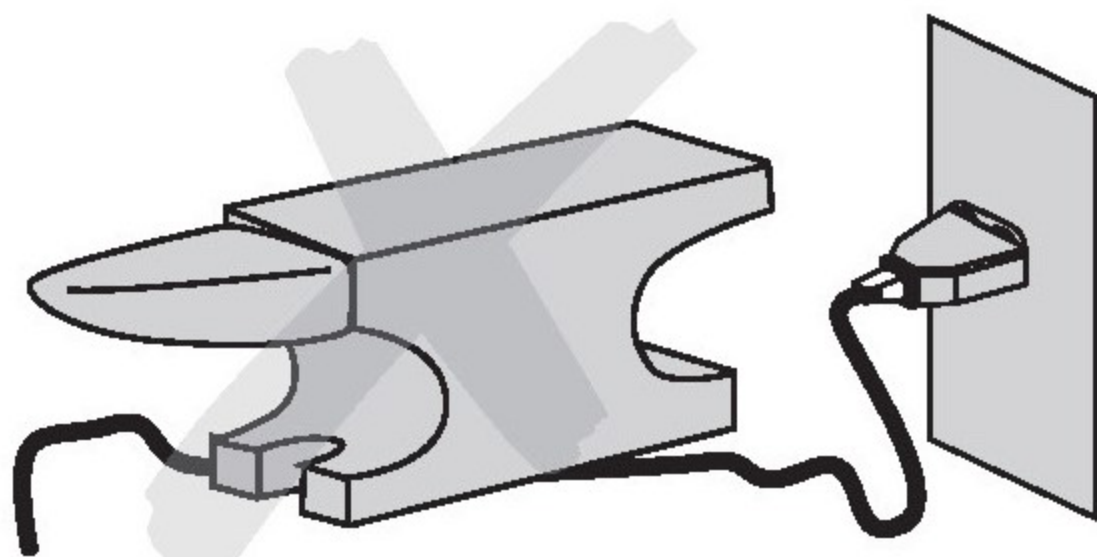
Please take apart the drill and remove worked item before assembly.



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



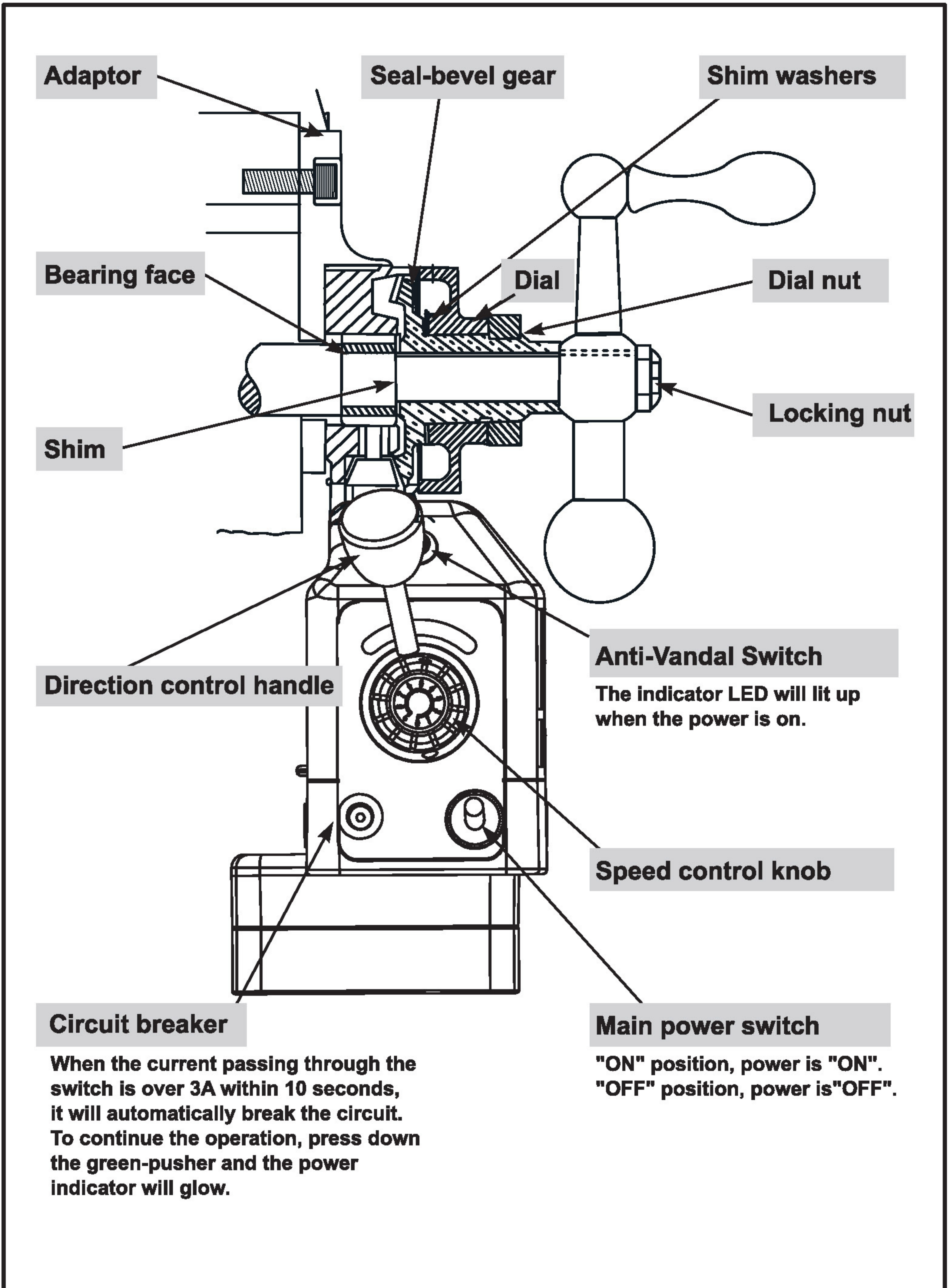
Please adjust suitable length of cord and watch out the wiring, never pressure power cord by clog then ambroin broken case short or spark.



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

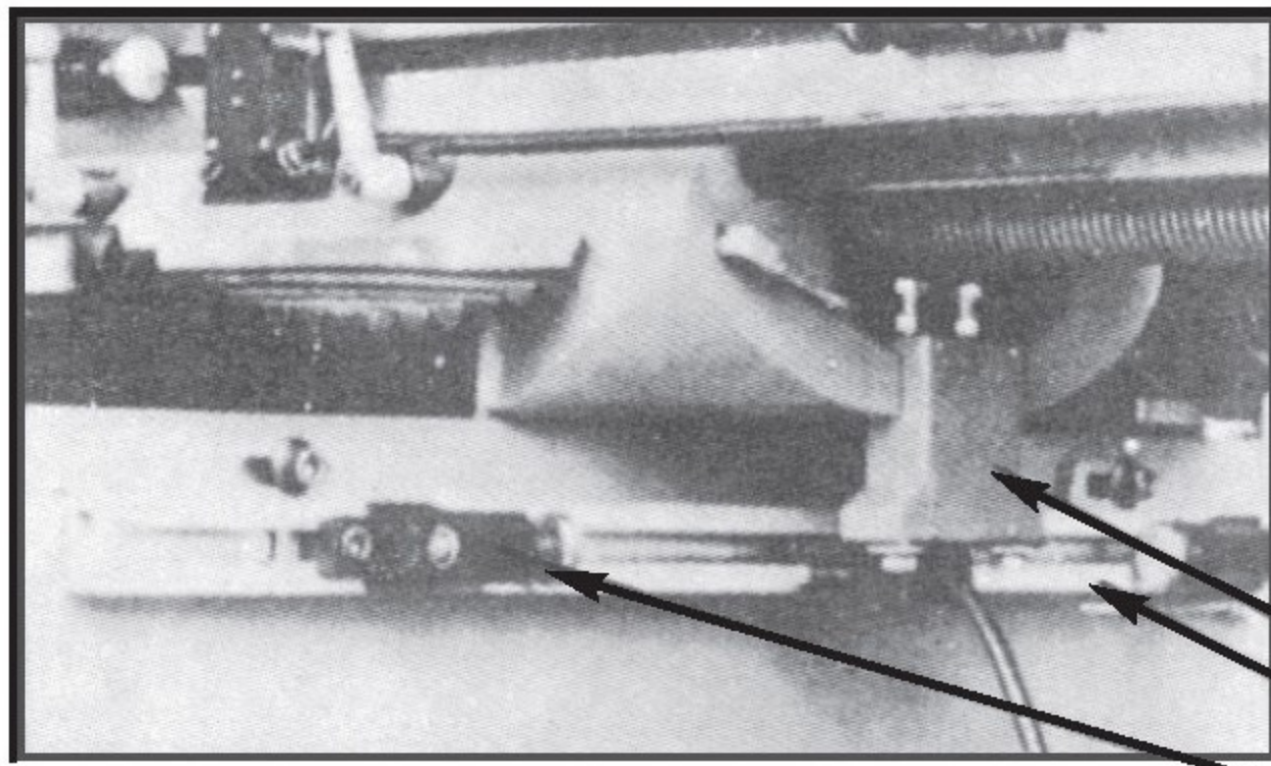


HOW TO INSTALL THE LONGITUDINAL FEED(X TYPE)



HOW TO INSTALL CROSS FEED(Y TYPE)

HOW TO INSTALL T-WAY TRACK FOR CROSS-FEED

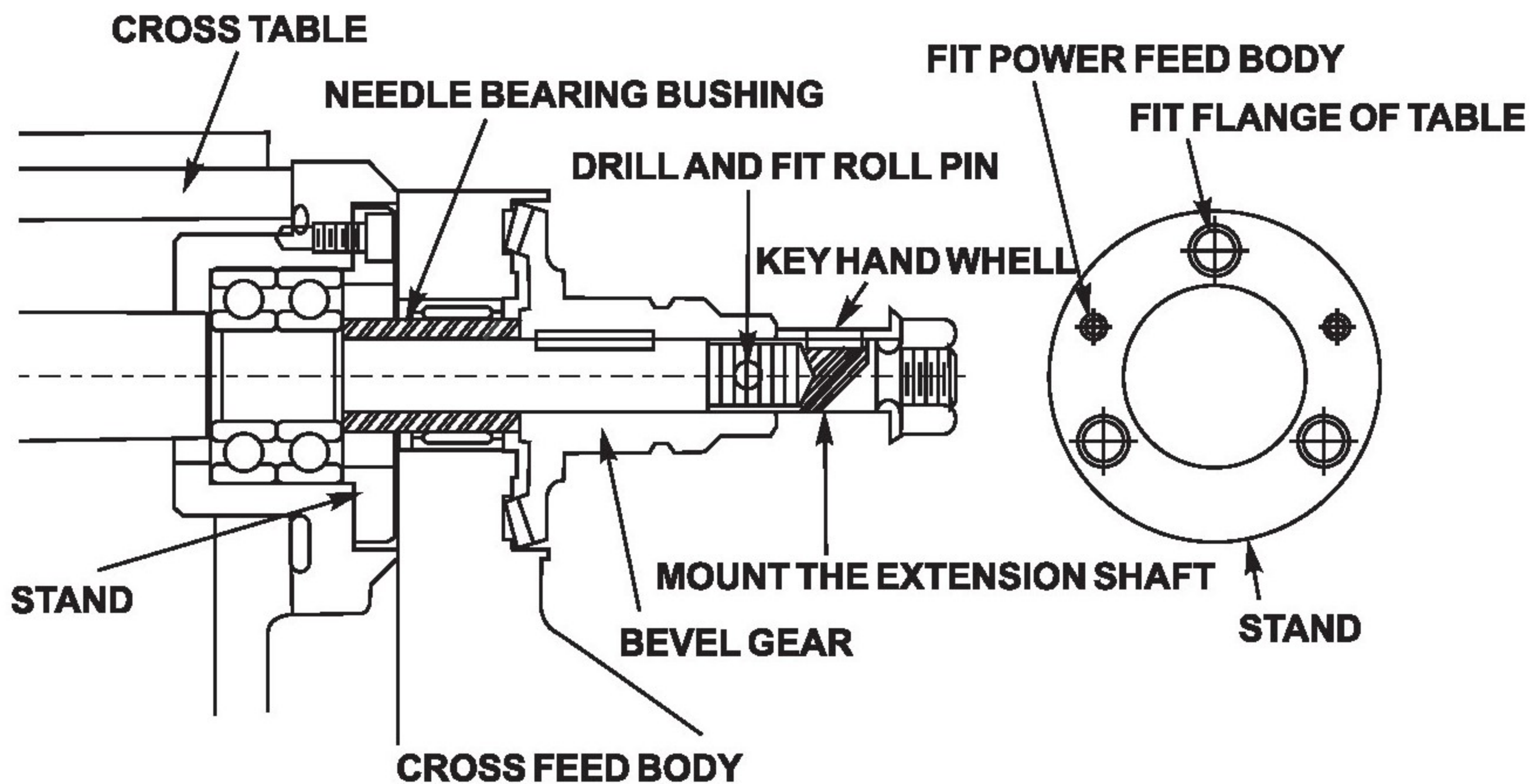


T-way bar and bracket for limit switch are designed for simple installation on cross slide.

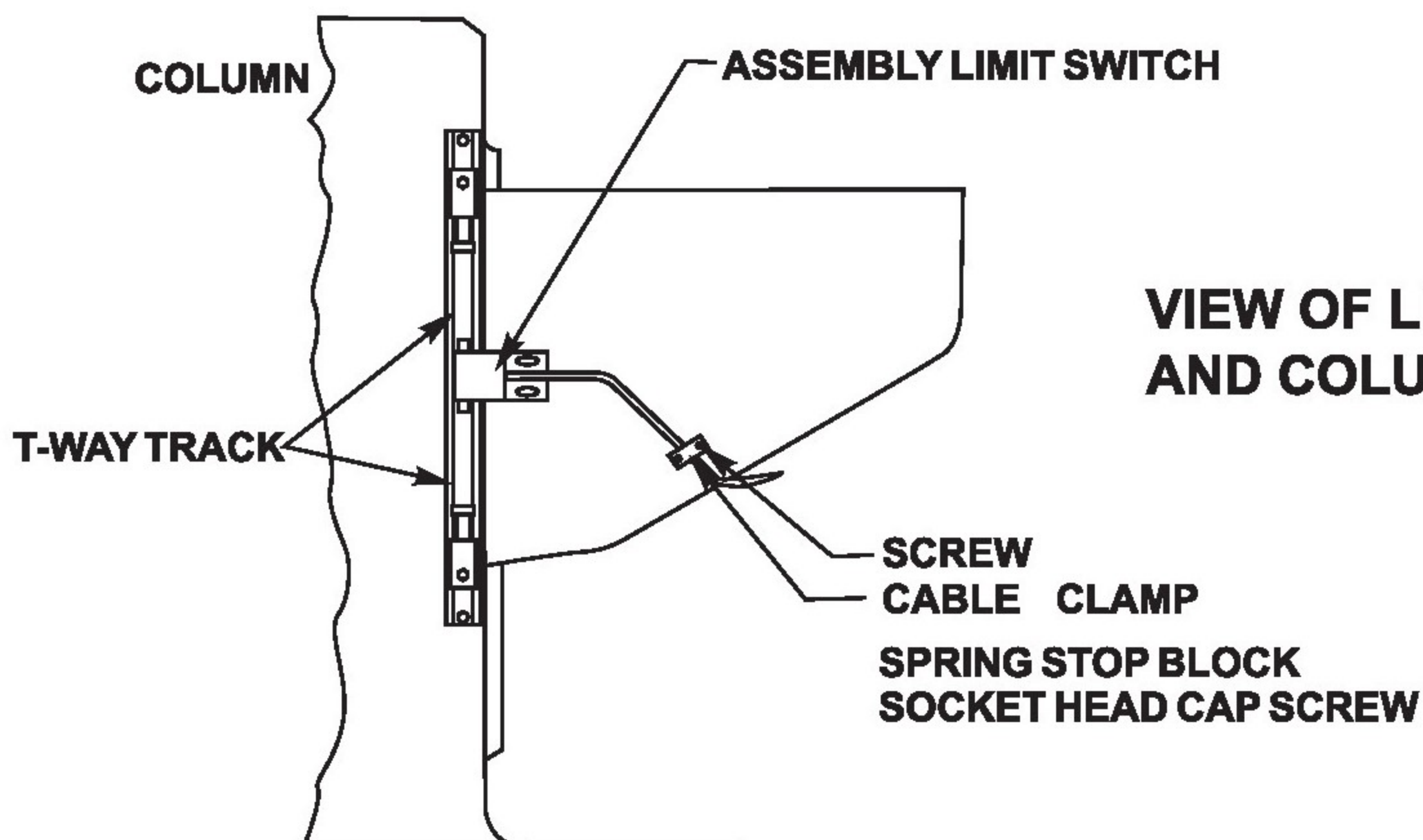
FIXED SUPPORT
T-WAY TRACK
STOP BLOCK

INSTALLATION INSTRUCTIONS

For ideal installation. You should not modify the cross travel lead screw.

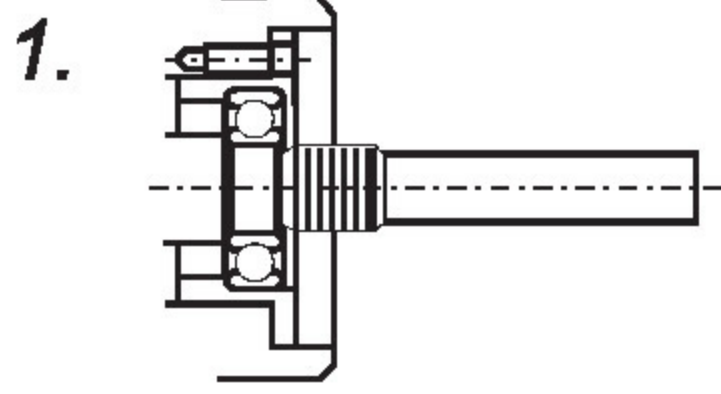


HOW TO INSTALL T-WAY TRACK FOR KNEE-LIFT FEED

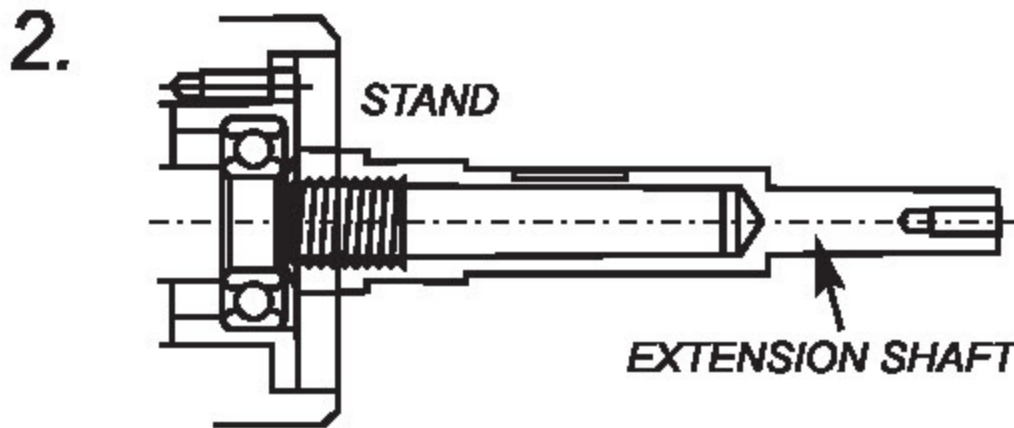


VIEW OF LIFT SIDE OF KNEE
AND COLUMN

HOW TO INSTALL KNEE LIFT FEED(Z TYPE)



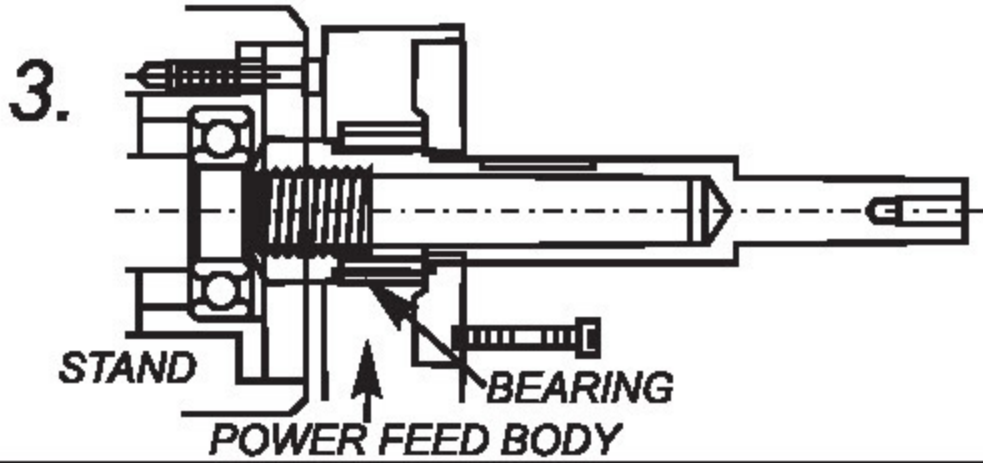
Note : Remove hand crank, dial, dial socket, bearing flange and...Etc.



Note : Install extension shaft.

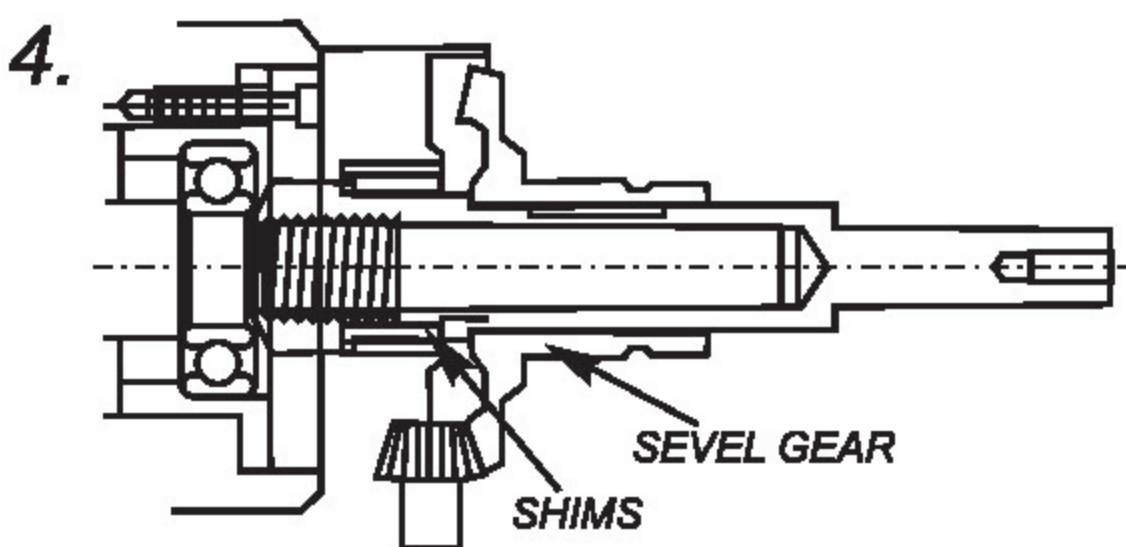
Important :

1. Shaft end must be against inner ring of bearing.
2. Inner shaft is 16 or 18 threaded unc.



Note : Tighten stand to flange then tighten knee feed on the flange.

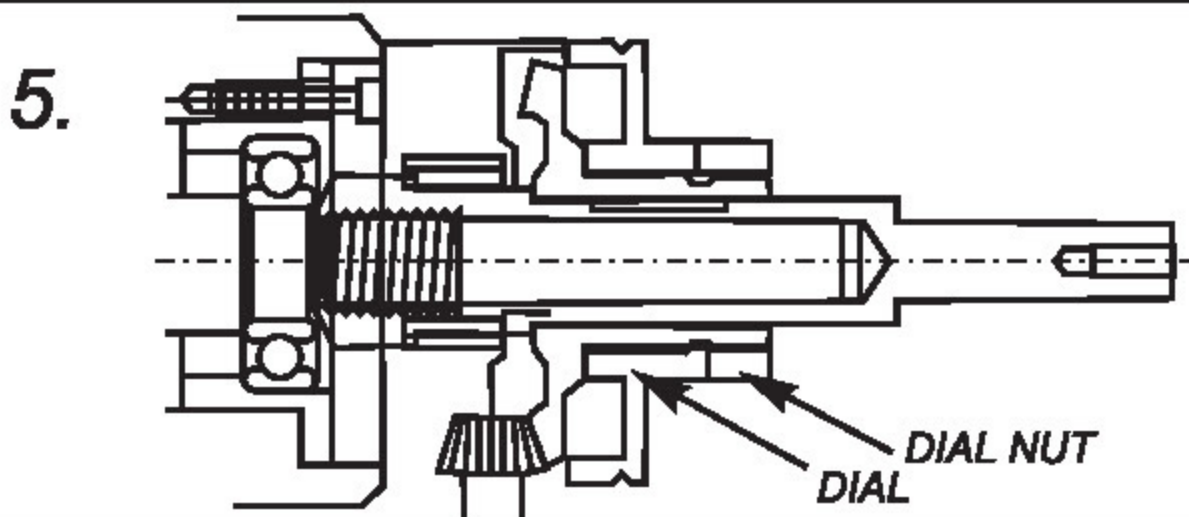
Important : For angular positioning.



Note : Install gear key not in.

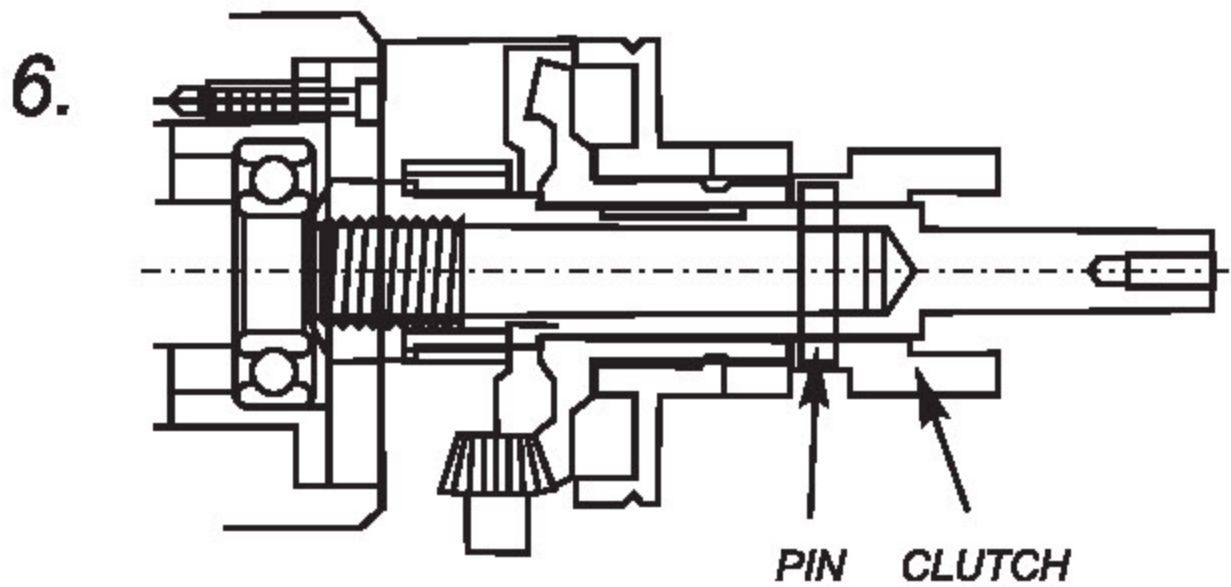
Important : Use hand to push & turn bevel gear to check backlash.

1. If necessary add a few shims to obtain proper backlash.
2. Modify leading edge of gear to obtain proper backlash. Then repack gear with grease. Replace gear then push and turn to check for backlash.



Note : Remove the bevel gear after STEP 4 is O.K. then install key, replace gear, install dial, and tighten dial nut. Add a few shim if dial is grinding the gear.

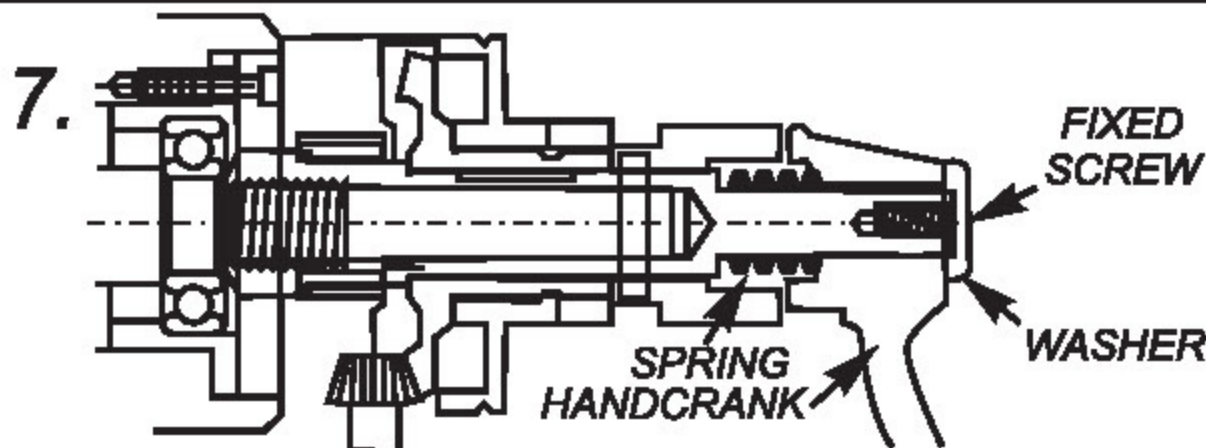
Important : Pack with grease before installing the gear. Do not use silicon-type grease.



Note : Install check clutch against bevel gear then drive through one hole of 5mm Dia. Then drive spring pin.

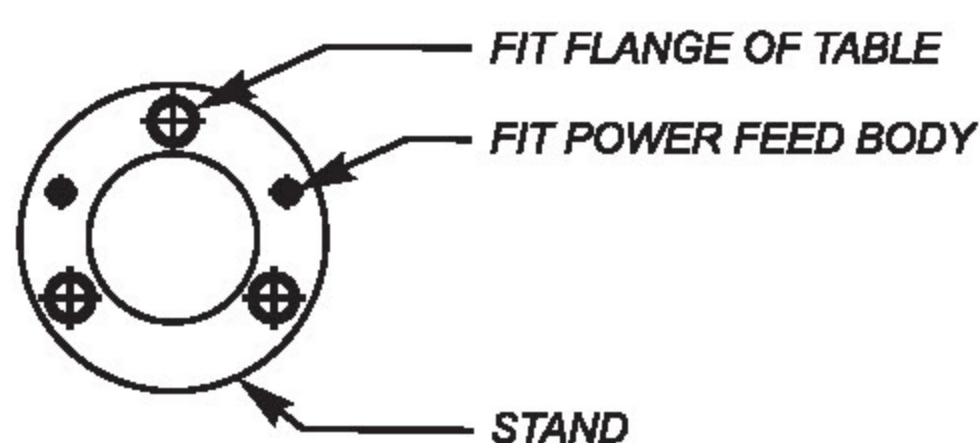
Important : Be sure you have followed each step carefully and correctly before installing the spring pins.

Suggestions : Install hand crank rotate in clockwise direction to check for proper shimming and that there is no binding action.



Note : Install spring handcrank(already installed), then tighten washer and screw.

Important : For operational safety, please lubricate this part and install as per instructions.



ASSY-LIMIT ASSEMBLY

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.
- 4.POWER FEED can only move to one direction.
Check : If ASSY-LIMIT SWITCH is normal.
- 5.Touch ASSY-LIMIT SWITCH POWER FEED in-between the TABLE and unable to stop it.
CHECK : If ASSY-LIMIT SWITCH is normal.

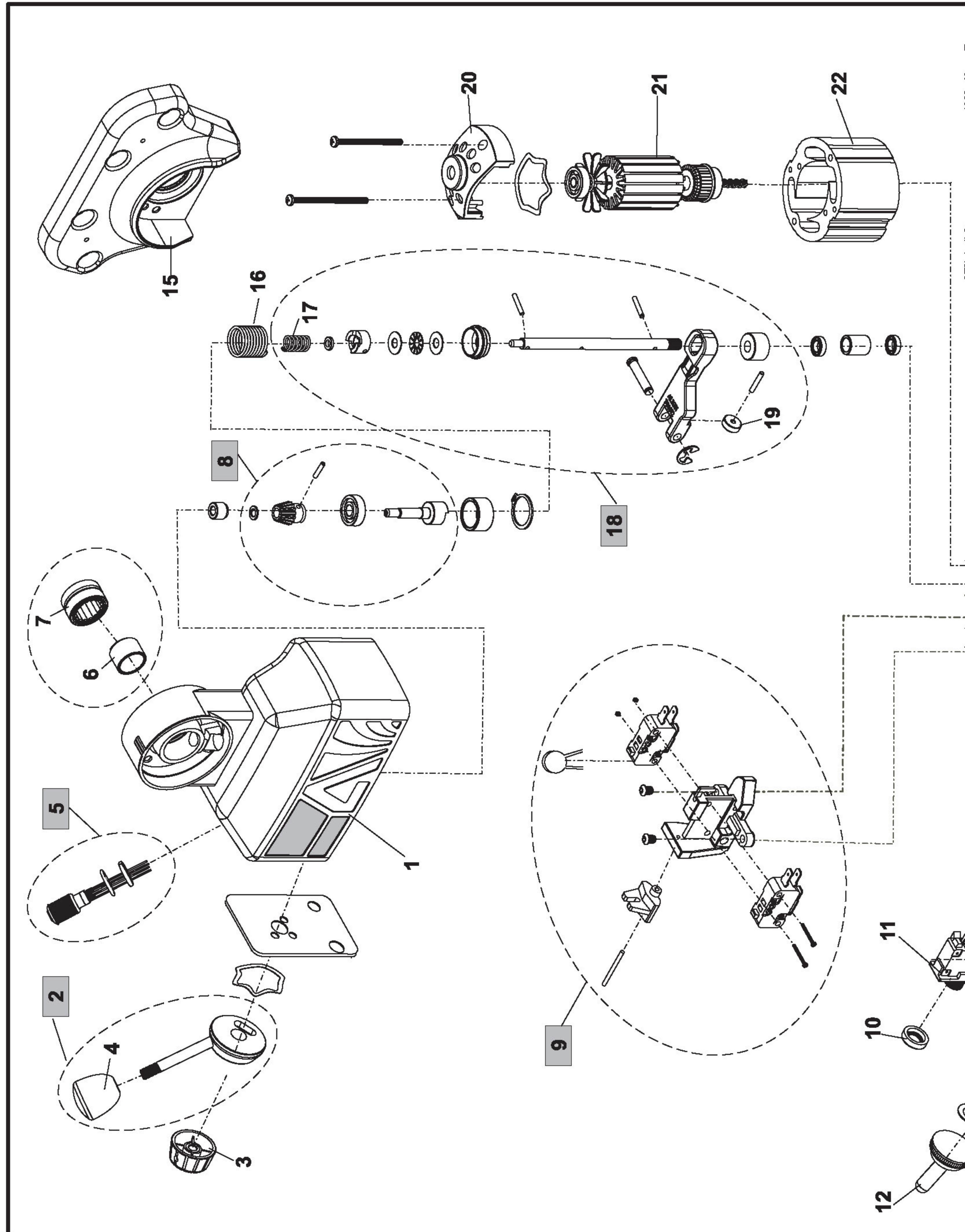
PARTS LIST

NO.	PART NAME	PART NO.	SPECIFICATION	REMARK
1	AL/CE-500P TOP HOUSING	PT001-12		
2	180 ° CONTROL HANDLE	P01810-12		
	90 ° CONTROL HANDLE	P01816-12		
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	A0101B	φ 24x16mm	
7	NEEDLE BEARING	A0101C	φ 24x φ 32x16mm	
8	AL/CE-500P UPPER CLUTCH ASSEMBLY	PT 200		
9	DIRCTION SWITCH ASSEMBLY	C0501-6V		
10	CAP OF CIRCUIT BREAKER	A0102-01		
11	CIRCUIT BREAKER	A0102A	AC 125V/250V 3A	
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-500P ADAPTOR	PZ001-13		
16	SPRING FOR TOP HOUSING	A0112	φ 11.5X φ 1.4X20mm	

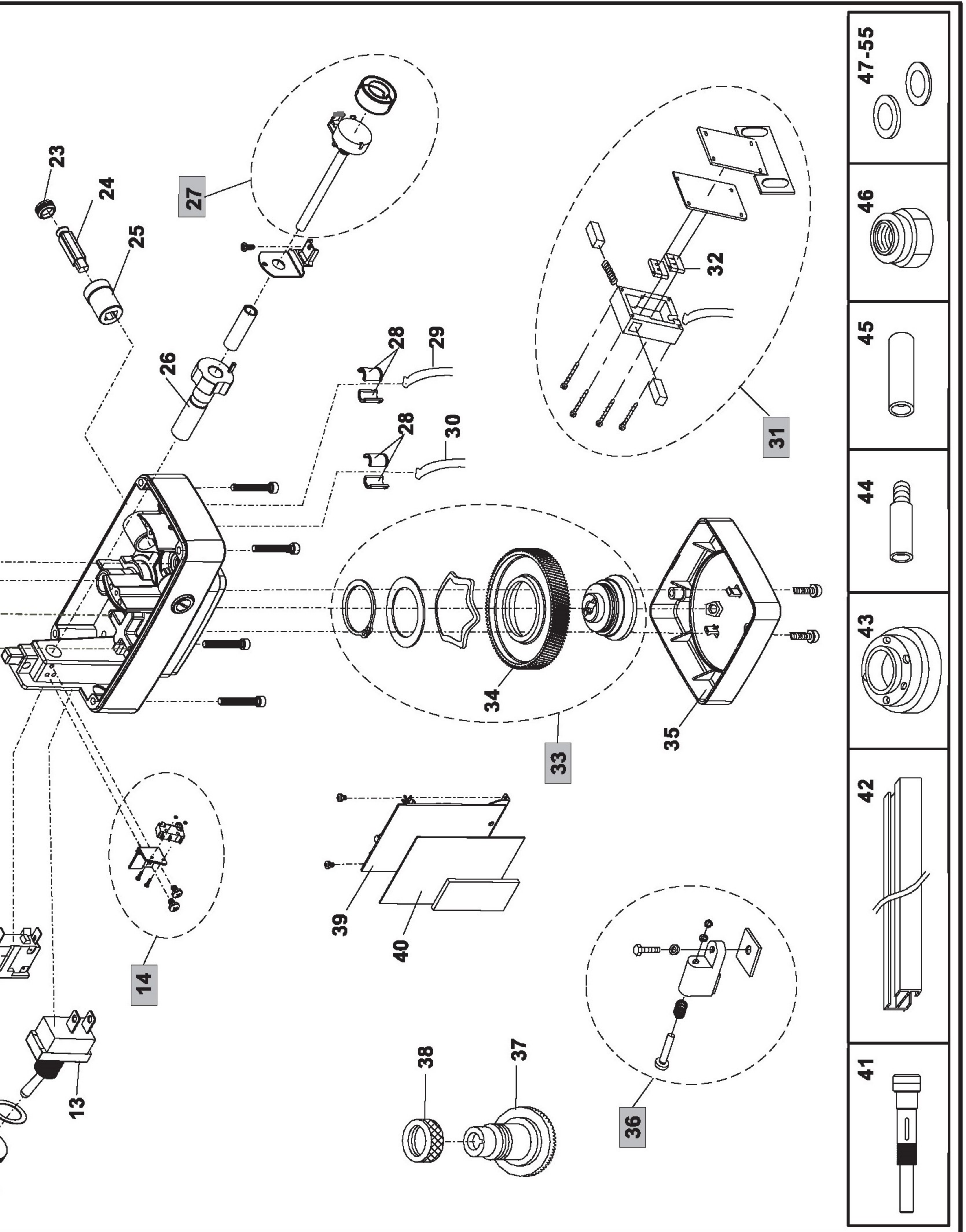
PARTS LIST

NO.	PART NAME	PART NO.	SPECIFICATION	REMARK
17	SPRING OF CLUTCH	A0301-05	8.5X11.5X20mm	
18	LIFT FORK ASSEMBLY	PB300		
19	LIFTFORK RING	P01028A		
20	ARMATURE MOUNT	P01082		
21	SP ARMATURE ASSEMBLY	P01907		
22	MOTOR FIELD	E0926V		
23	CARBON BRUSH CAP	E0906	φ 11.7X φ 5X5mm	
24	BRUSH	E0905	φ 8X6.1X37.5	
25	CARBON BRUSH HOLDER	P01004	φ 16.6X φ 15.4X22.5mm	
26	500P CAM ASSEMBLY	E0902V		
27	POTENTIOMETER ASSEMBLY	P01905	10K	
28	STRAIN RELIEF	E0917		
29	CONTROL CORD	E24002	0.75X4CX1.7M	
30	POWER CORD	E23017	0.75X3CX2.7M	
31	AL LIMIT SWITCH ASSEMBLY	P01910-AL		
	CE LIMIT SWITCH ASSEMBLY	P01910-CE		
32	MICRO SWITCH	F1104	10.1A 250AC	
33	PLASTIC GEAR ASSEMBLY	PB800		
34	PLASTIC GEAR	PB801	φ 91.5X15X107T	
35	AL-500P/AL500D BOTTOM COVER	P01809LS-03		
36	X AXIS TRAVEL STOP ASSY	P01916-1		2 PCS
	Y.Z AXIS TRAVEL STOP ASSY	P01916		
37	BEVEL GEAR X/Y (STANDARD)	P01017	5/8" x1/8"	
	BEVEL GEAR Z (STANDARD)	P01032	22x4mm	
	BEVEL GEAR	P01054	20x6	
38	BEVEL GEAR NUT	A0100-01	1/4" X20W	
39	JC-10A CIRCUIT BOARD	PB400		
40	CIRCUIT BOARD INSULATOR	E0918V	100X70XT1mm	
41	EXTENSION SHAFT (Z)	P01922	16T	STANDARD
	EXTENSION SHAFT (Z)	P01929	20T	
42	T-WAY TRACK	A0301-15A	59.5cm	
	T-WAY TRACK	A0301-15B	66.5cm	
	T-WAY TRACK	A0301-15D	29.5cm	2 PCS
43	ALUM STAND	PFB-01A	29.5mm	
	ALUM STAND	PFB-02	35mm	

SCHEMATIC DIAGRAM OF PARTS



SCHEMATIC DIAGRAM OF PARTS

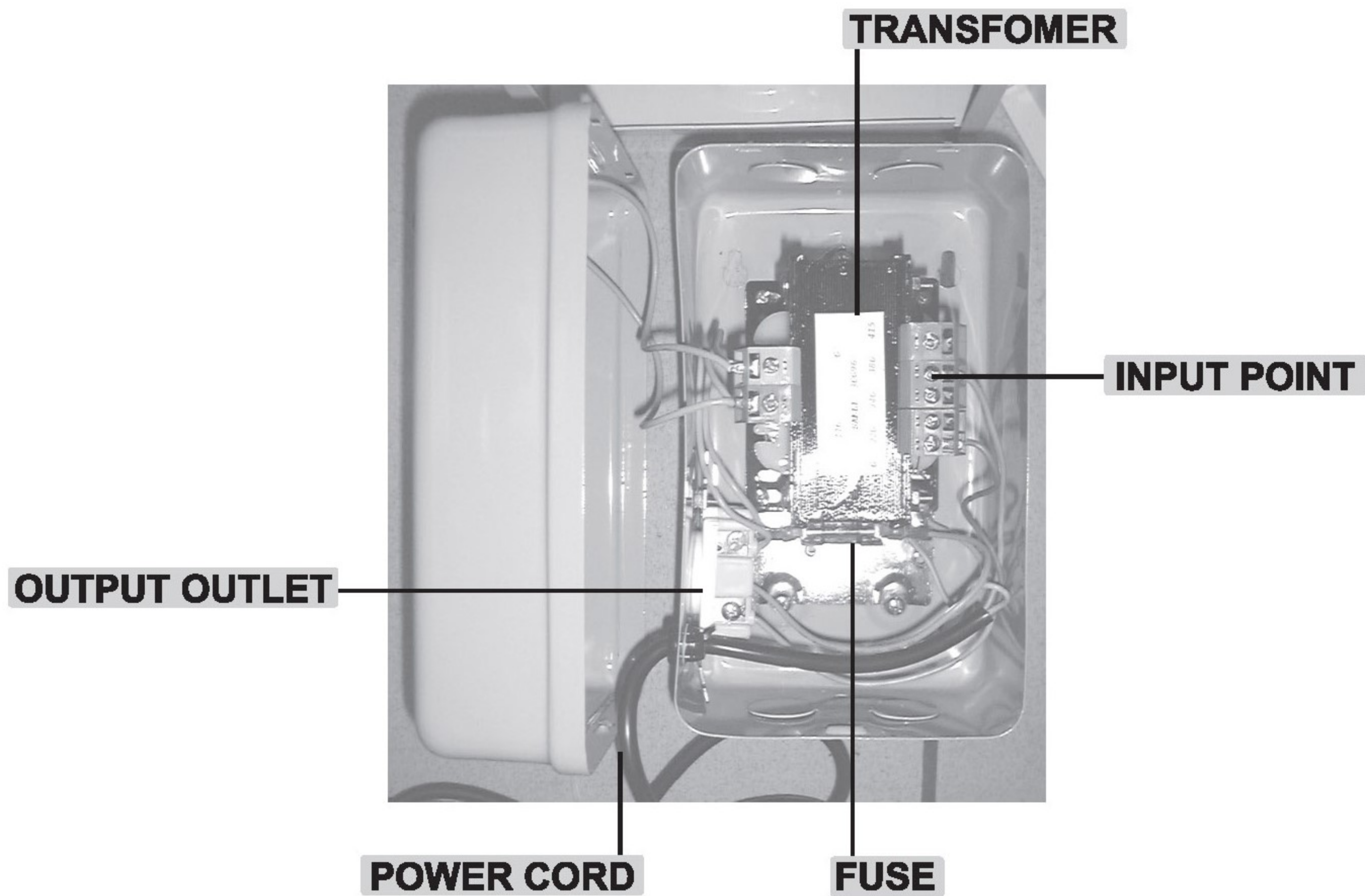


HOW TO INSTALL TRANSFORMER OF TR-1(ONE OUTPUT)

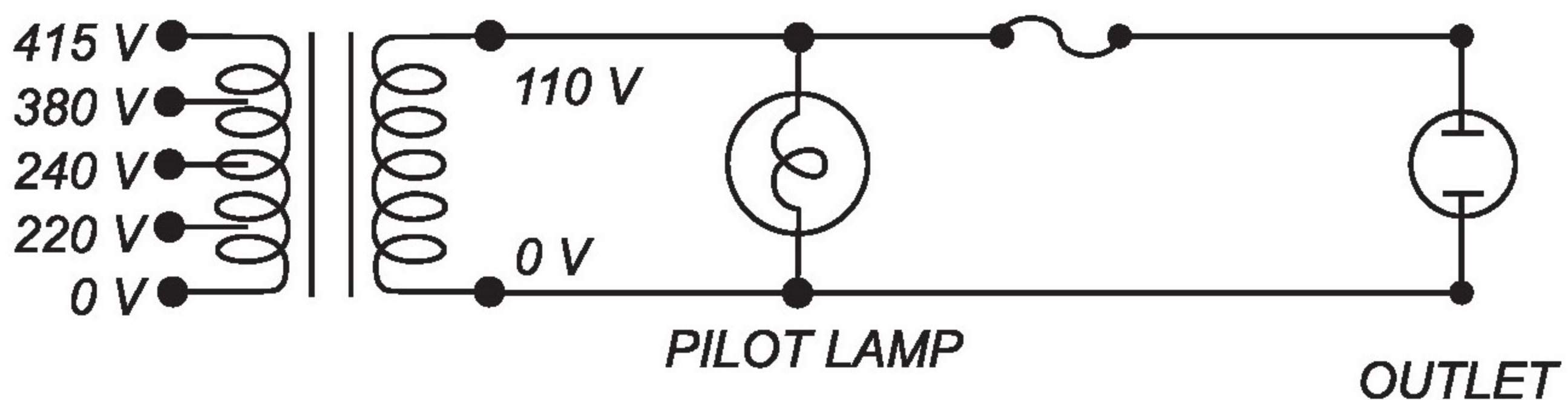
TRANSFORMER OF TR-1 IS USED FOR 220V, 240V, 380V AND 415V THEN TRANSFER TO 110V. ATTACHING POWER PILOT LAMP AND ONE OUTPUT OUTLET.

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

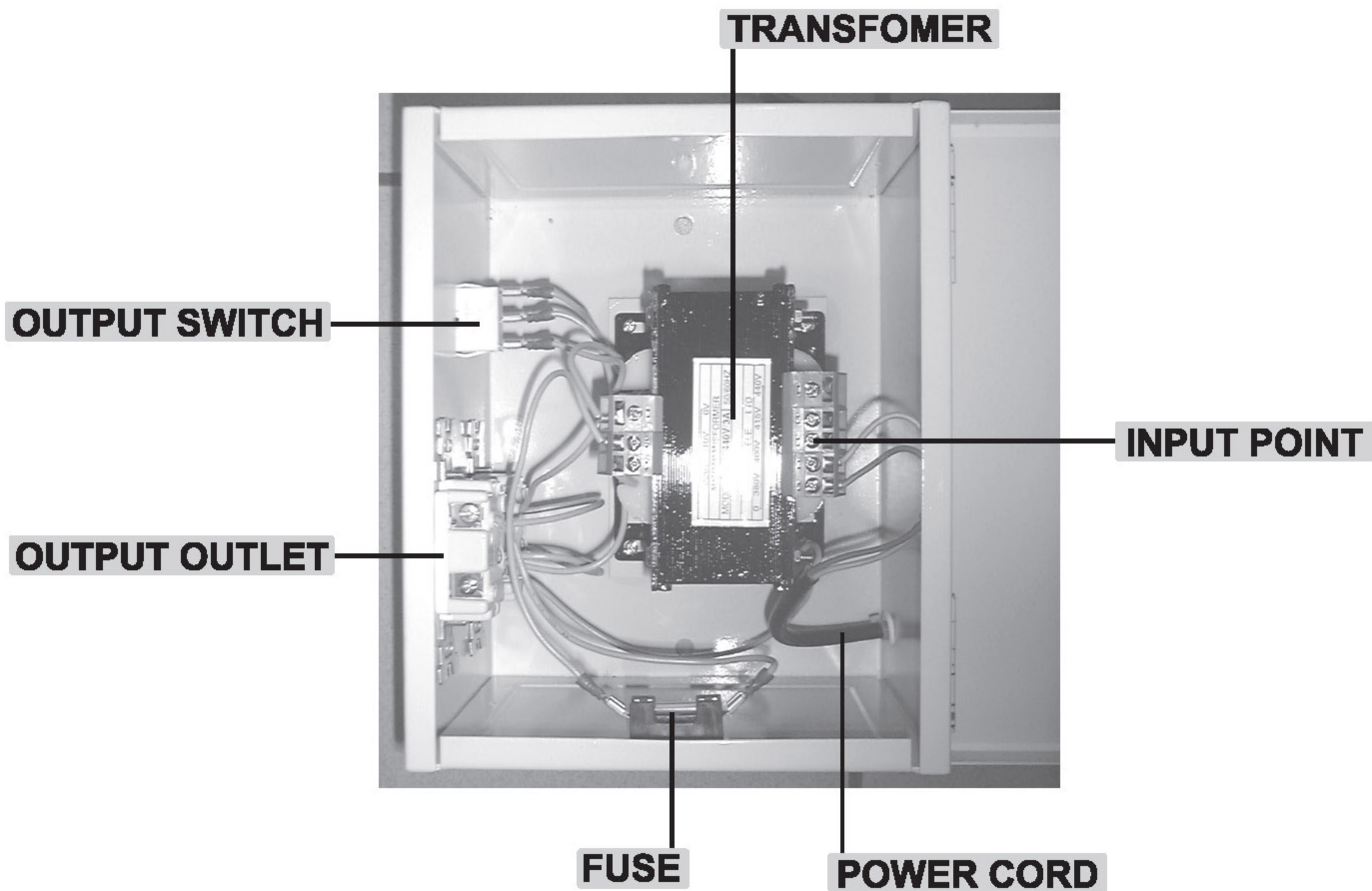


HOW TO INSTALL TRANSFORMER OF TR-2(TWO OUTPUT)

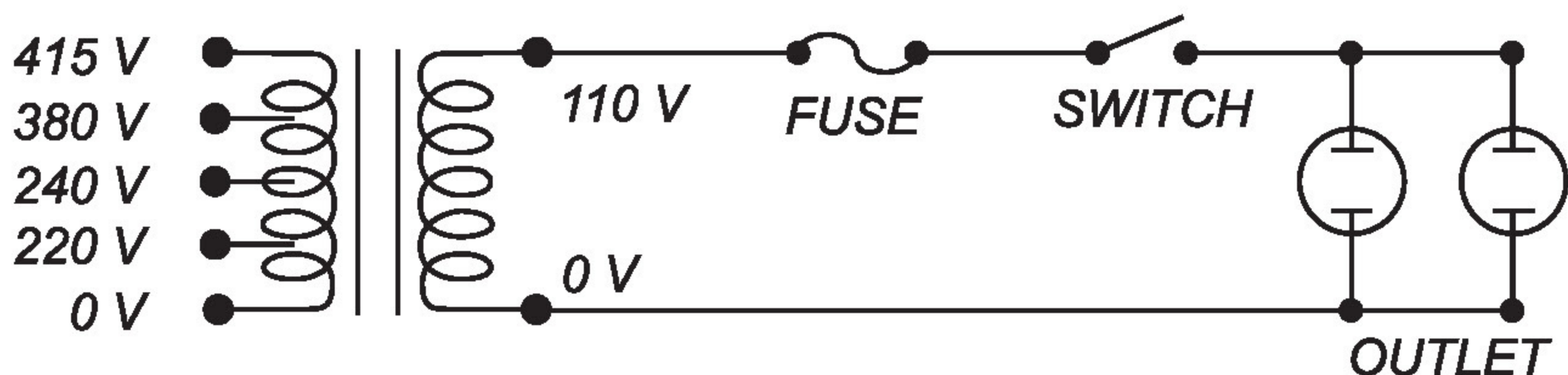
TRANSFORMER OF TR-2 IS USED FOR 220V,240V,380V AND 415V, THEM TRANSFER TO 110V. ATTACHING POWER SWITCH AND TWO OUTPUT OUTLET.

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



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.**