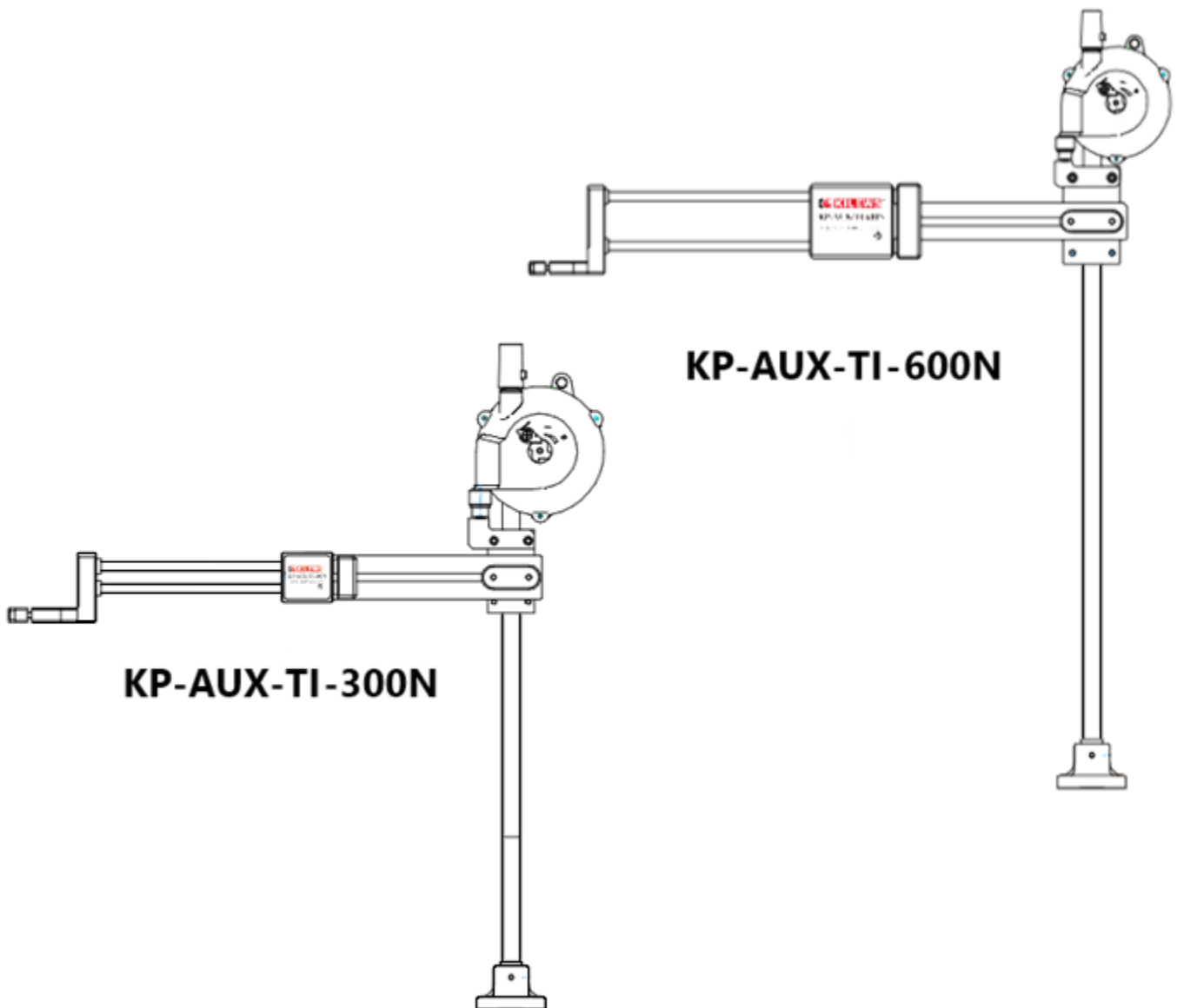


Auxiliary Arm Manual

Extended reach



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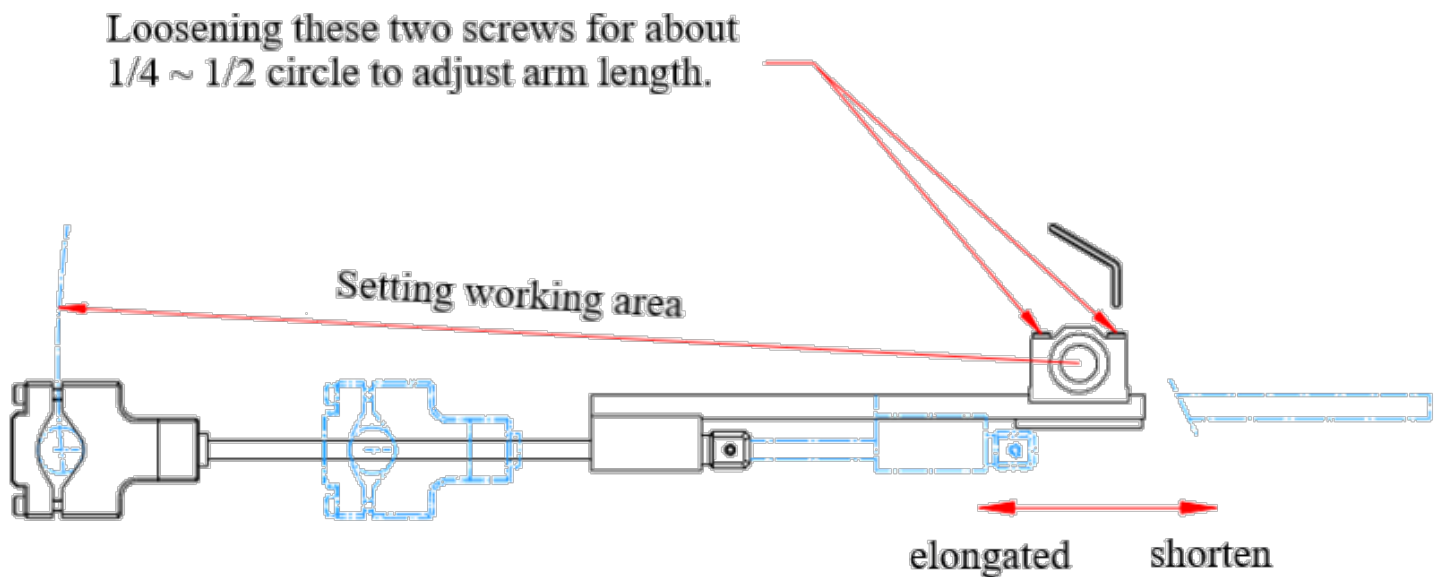
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I. Introduction

In order to prevent injuries, an auxiliary torque arm has been added to reduce torsion and weight of the screwdriver. Each auxiliary arm corresponds to ergonomics for additional safety measures.

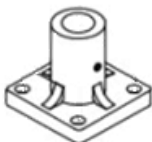
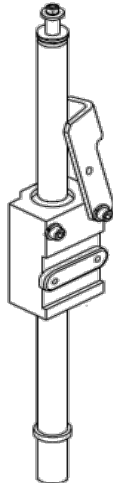
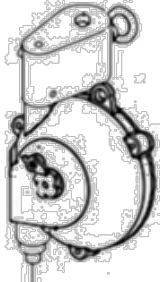
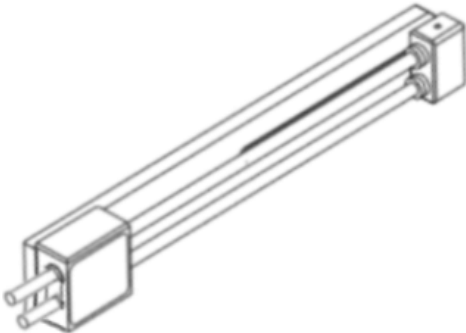
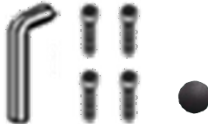
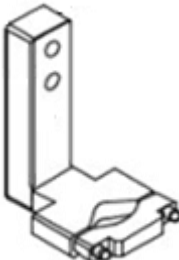
II. Feature

1. A 360° rotation plus horizontal extension ability allows the screwdriver to reach different devices at ease. In addition, the adjustable spring balancer can stop screwdriver from lifting up and down at anywhere that is not only helping to increase work efficiency but also productivity.
2. KP-AUX-TI-300N/KP-AUX-TI-600N series help to save working space. With its stepless extension bar and fast lock design, it is lots easy and convenience to operate this auxiliary arm. See chart below.



III. Item lists

item comparison table

Item No.	Part No	Objects	Qty.	Diagram
01	KP20007-7N	Base plate	1	
02	KP20032I-2	Supporting pole set KP-AUX-TI-300N	1	
	KP20032I-3	Supporting pole set KP-AUX-TI-600N	1	
03	KL-T5000B-1	KL-T5000(AUX-TI-300N)	1	
	KL-T7000B-1	KL-T7000(AUX-TI-600N)	1	
04	KP20033I-2	Extension arm set KP-AUX-TI-300N	1	
	KP20033I-3	Extension arm set KP-AUX-TI-600N	1	
05	PP0122N	Tool kits: screws x 4 pcs, Hex wrench x 1 pc, plug x 1 pc	1	
06	KP20031-2	Clamp set KP-AUX-TI-300N	1	
	KP20031-3	Clamp set KP-AUX-TI-600N	1	

IV. Precautions

For use of this product properly, avoid jeopardizing personal and property safety of the lives of others, to prevent the occurrence of danger and be sure to read the instructions carefully.

<Please be sure to follow instruction>

1. Sign definitions



【PROHIBITION】 Attempting to perform without notice may cause body injury or damage to the auxiliary arm.



【WARNING】 Attempting to perform without notice may cause body injury or damage to your objects.

2. Safety notification

	Follow instructions in this manual and operate machine correctly.
	Do not spread unknown contaminants to the machine such as oil or water.
	Modification and disassembly are not allowed.
	Keep hand in the safty area while machine is operating.
	Measure tool's weight and adjust balancer to a proper position.
	Please maintain and clean the machine regularly.

V. Description (Such as item comparison table)

1. Assembly - Arm

(A) Take out 4 M6 * 25 (#14) screws from tool kits (05) and use them to tight pole base on your working table.

See figure 1

(B) Insert supporting pole end (02) way down to the table through pole base (01).

(C) Use set screw x 2 (#15) to tight supporting pole.

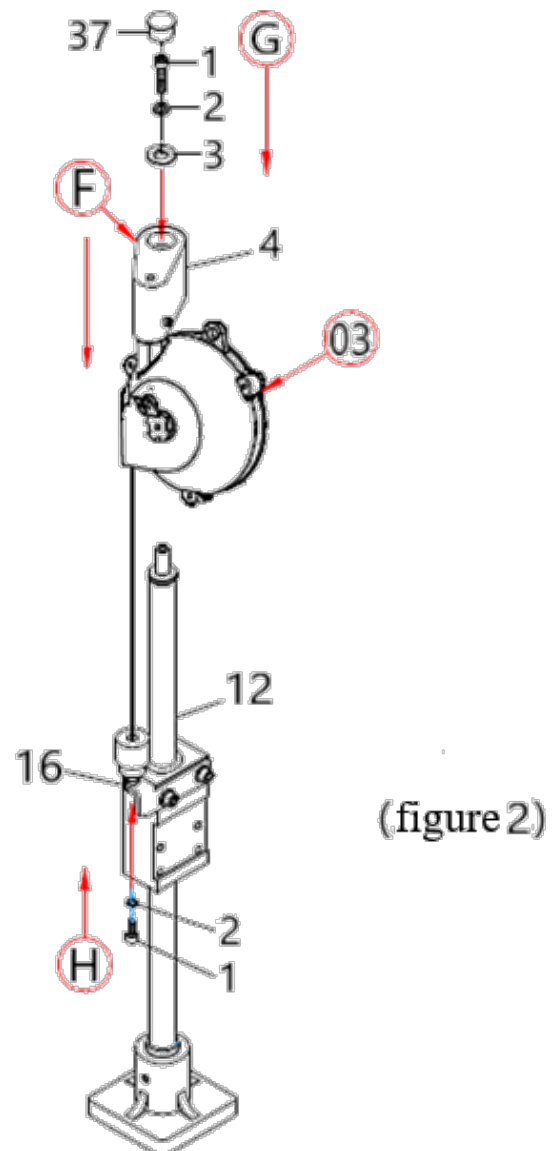
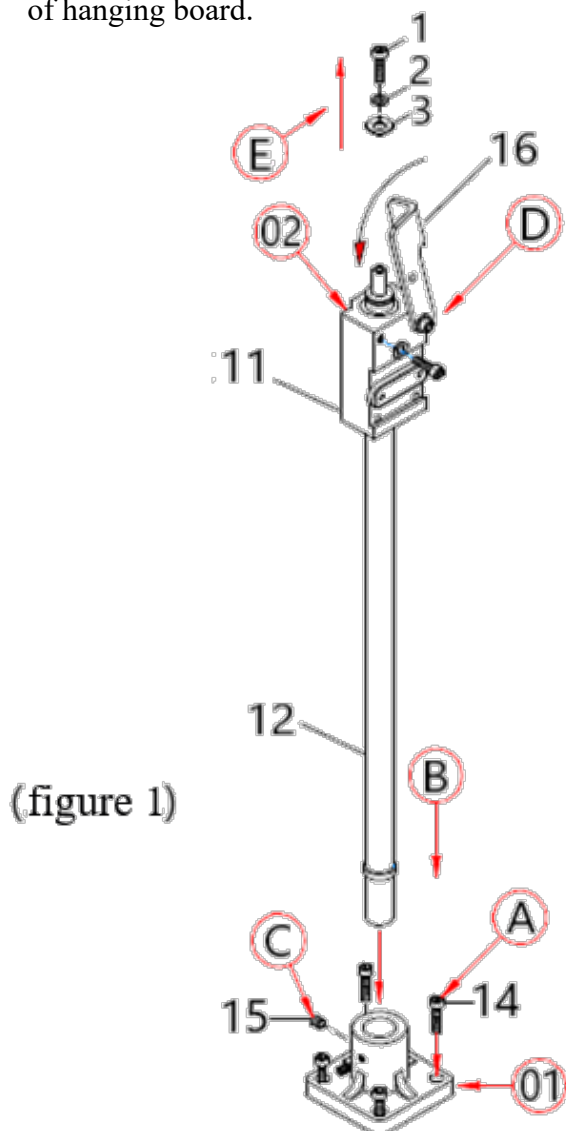
(D) Loosen two hex screws and spring washers then counterclockwise to loosen hanging board after that aiming holes then tight on with hex screws.

(E) Remove hex screw (#1), spring washer (#2), and washer (#3) from top of supporting pole (#12).

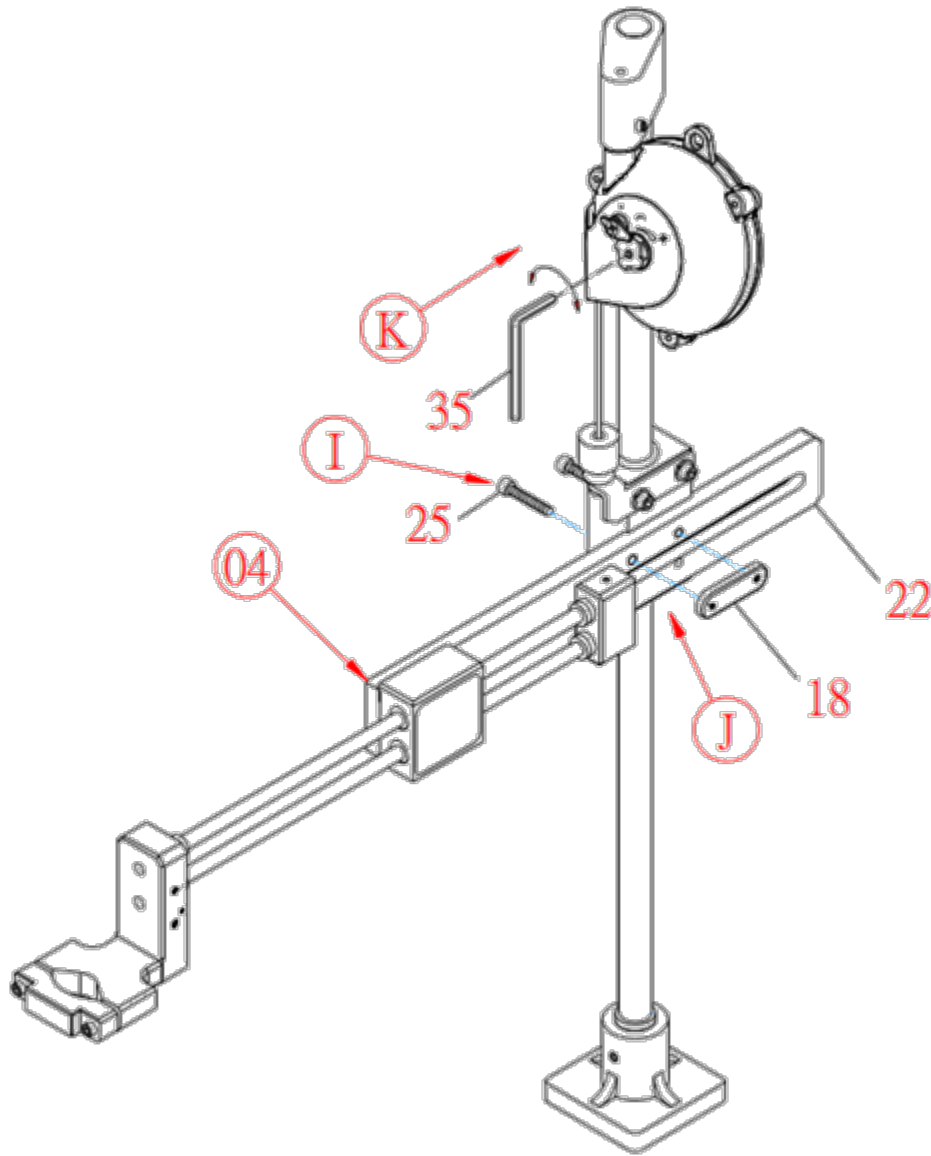
(F) Place hanger (#4) of spring balancer (03) on top of supporting pole (#12) carefully. (Note: back shell, flat side, of spring balancer faces supporting pole) See figure 2

(G) Put back just removed washer (#3), spring washer (#2), and hex screw (#1) in order into spring balancer's hanger then tightens on. Making sure the hanger is free to turn then put a plug (#37) from tool kits (05) onto the top of hanger.

(H) Remove hex screw (#1) and washer (#2) from wire rope top of spring balancer (03) then pull rope down and tight on with hanging board (#16). Make sure the gear part on the top of wire rope must go through the hole of hanging board.



- (I) Loosen 2 M6 * 45 (#25) hex screws (TI-600N is M8 * 55) and then remove fixed plate (#18) from bearing housing of supporting pole.
- (J) Place an extension arm (04) and slide (#22) into notch of bearing housing (#11). In the meantime, put back fixed plate (#18) and use previous loosened hex screws (#25) to tight on (Make sure edges of extension arm that must place into notch completely.). See figure 3. Checking spring balancer (K) if it is in secure, and then use 6 mm hex wrench (#35) from tool kits (05) to adjust loading value to proper position. Please read on page 3 to find more related names. Please refer to page 11 for spring balancer loading adjustment.

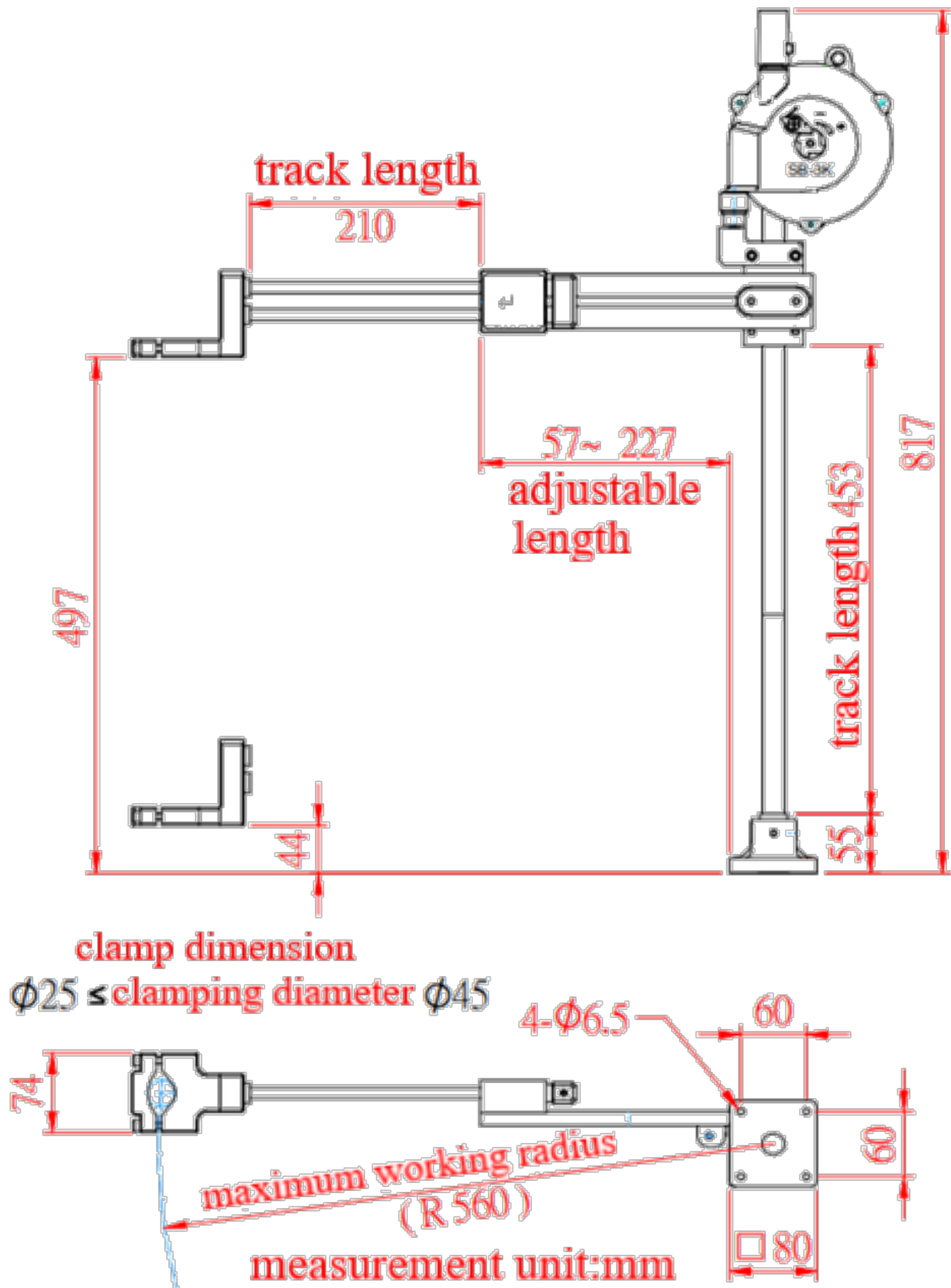


(figure 3)

2. Dimension :

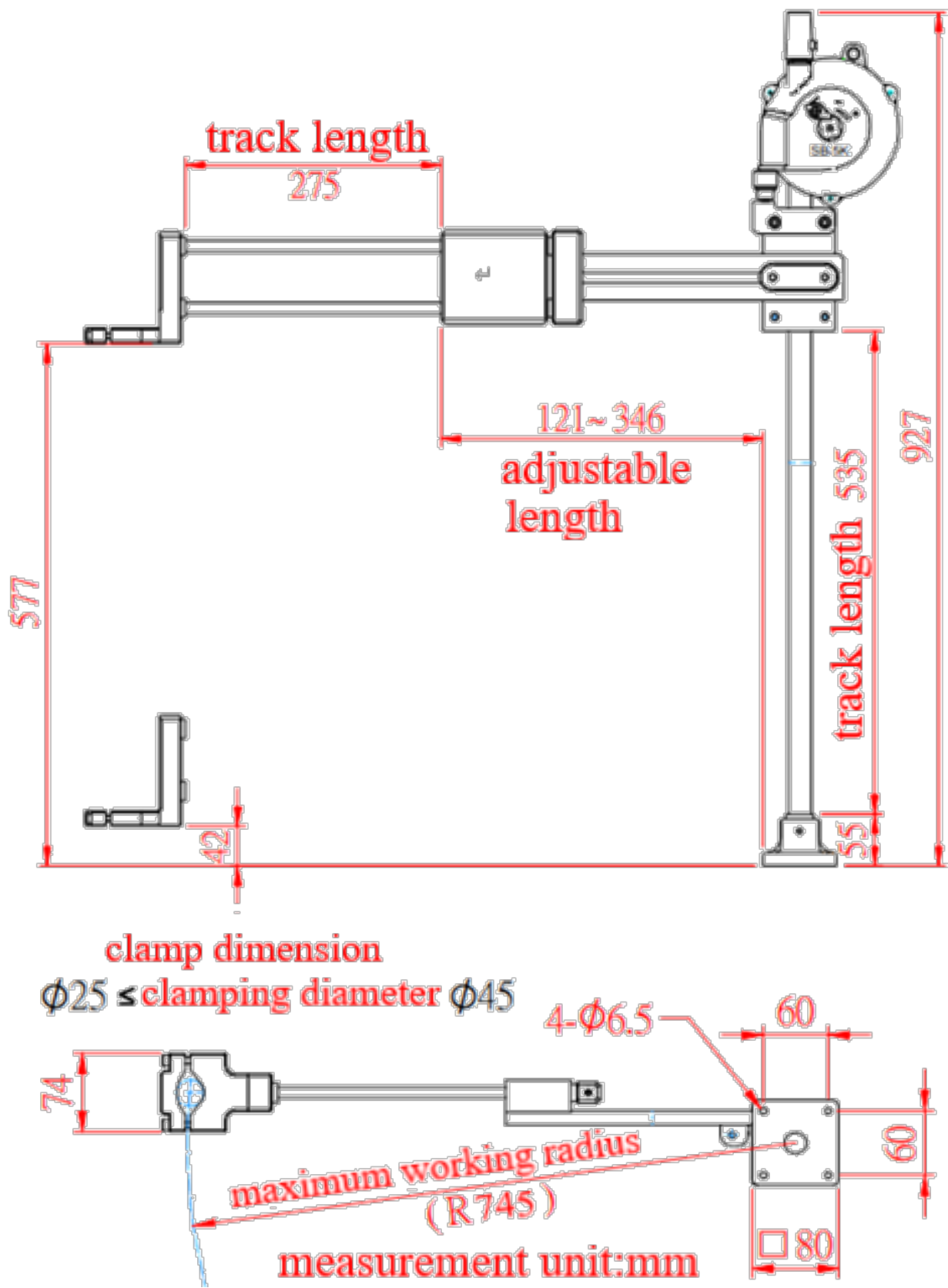
2-1. Model : KP-AUX-TI-300N

Weight (kg)	Place of use	Operating Temperature	Operating Humidity	Screwdriver's weight (kg)	Max. Torque (Kgf-cm)	Operating area (mm)
Approx. 6.3	Indoor	-5°C~ 60°C (NO freezing)	20%~ 90% (NO condensation)	0.8~2.8kg	150	560



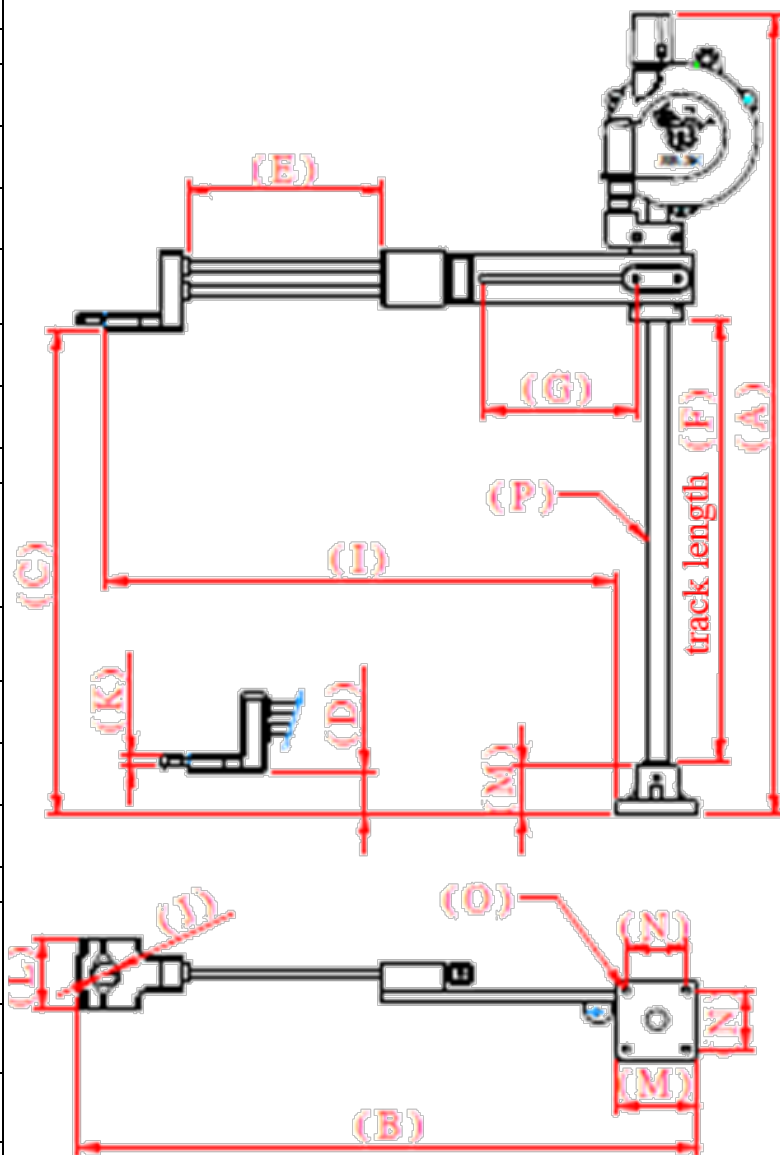
2-2. Model : KP-AUX-TI-600N

Weight (kg)	Place of use	Operating Temperature	Operating Humidity	Screwdriver's weight (kg)	Max. Torque (Kgf-cm)	Operating area (mm)
Approx. 10.4	Indoor	−5℃~ 60℃ (NO freezing)	20%~ 90% (NO condensation)	0.4~2.4kg	250	745



3. Extension arm parameter

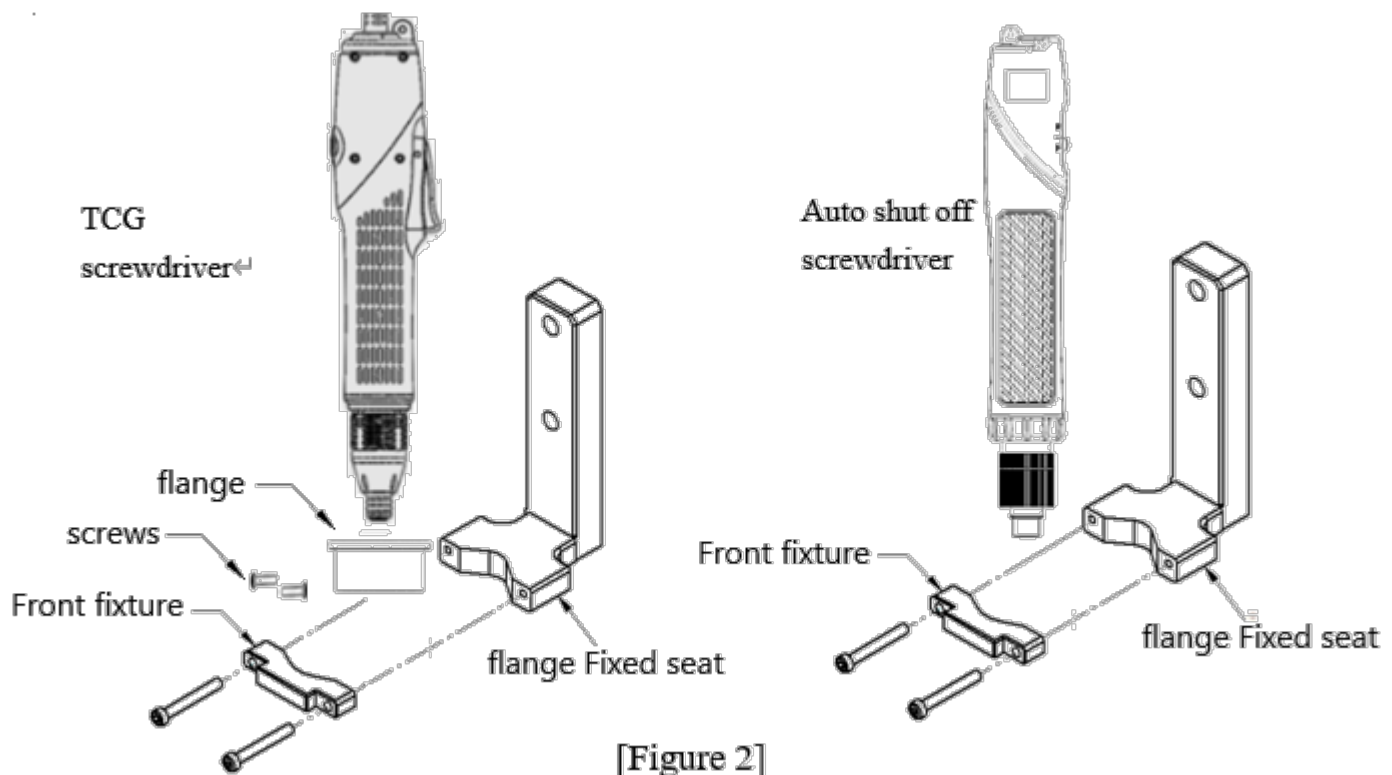
Item	Name/ Status		TI-300N	TI-600N
A	Spiral spring balancer		KL-T5000	KL-T7000
	Weight capacity (kg)		0.8~2.8	0.4~2.4
	Dimension	height	817	927
width		624	822	
C	Distance between clamp and table	highest	497	575
D		lowest	44	42
E	Track length (max.)	horizontal	210	280
F		vertical	453	533
G	Extendable distance		68	170
H	Working radius		224	---
I	Working radius (From edge of base)	max	217	708
		min	137	201
J	Clamping diameter		Φ25 ~ Φ45	
K	Thickness		12	
L	Clamp width		74	
M	Base	Dimension	80 * 80 * 50 L*W*H	
N		Distance between thread holds	60 * 60	
O		Hex Screw	Inner Hexagon M6*25L---4pcs	
P	Supporting pole dimension		Φ20*800L	Φ25*910L
Net weight (kg)			6.0	6.3
Maximum Torque capacity .kgf-cm/ Nm			150 / 14.7	150 / 14.7



VI. Tool installation guide

1. Fitting tool

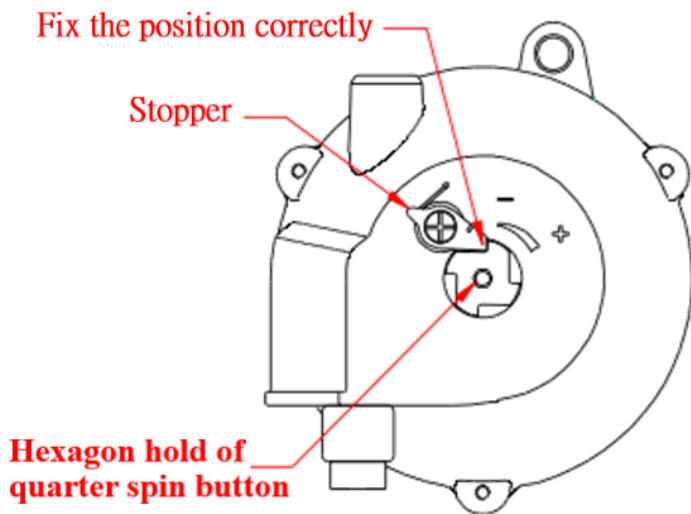
- (1) Before clamp a tool, make sure auxiliary arm is seated at the lowest position, and spring has released its tension.
- (2) Follow the instructions to clamp a screwdriver and tight with M6*50 screws. The available dimension of fixture for screwdriver is from $\phi 25\text{mm}$ to $\phi 45\text{mm}$.
- (3) In order to prevent unexpected force from spring and cause any injury, make sure to follow instructions from the item 1 when replace or release the screwdriver.



Caution!!

- 1.1 Put flange on TCG screwdriver before clamped to avoid damage from fixture.
 - 1.1.1 Make sure to adjust flange slightly right after tightening up and shift holes of flange away from screwdriver's thread carefully to avoid screws harming thread.
 - 1.1.2 Make sure the TCG screwdriver is seated vertical to fixture before tightening up.
- 1.2 The replacement procedure of the auto shut off screwdriver is the same as TCG type but no need flange.

2. Spring adjustment



Be careful and follow the instruction when make lifting adjustment. Use your right hand (suggestion) to hold 6 mm hex wrench and insert it into hexagon hold of quarter spin button way down to the end. Turning wrench to drive quarter button on clockwise direction to get a higher tension on wire rope. For loosening wire rope tension, you must use stopper carefully to prevent kicking back from quarter spin button. To do so, please turn your wrench a little bit on clockwise direction then using thumb of your left hand to lift stopper and then slow and hold on tight on wrench to turn wrench on counterclockwise direction inch by inch.



Note: Making a lower tension, the hex wrench handle shall point to 6 o'clock then insert it into quarter spin button. Each turning would be a 1/4 (90-degree) spin on counterclockwise direction and then pull wrench out. Please repeat this procedure to make next 1/4 turn.



Note: Make sure stopper goes back a secure position when makes each adjustment. (see chart above)

VII. Maintenance

For better condition and extending life cycle of this machine, please clean and maintain regularly.

1. **Daly** Lubricate the machine with the industrial oil like WD-40 daily as a frequent user.
2. **Weekly** Add proper greases into the linear bearing part weekly. [Figure 2]

You may shorten maintenance time period, if the machine has been used under a bad weather condition or a higher frequent use.

