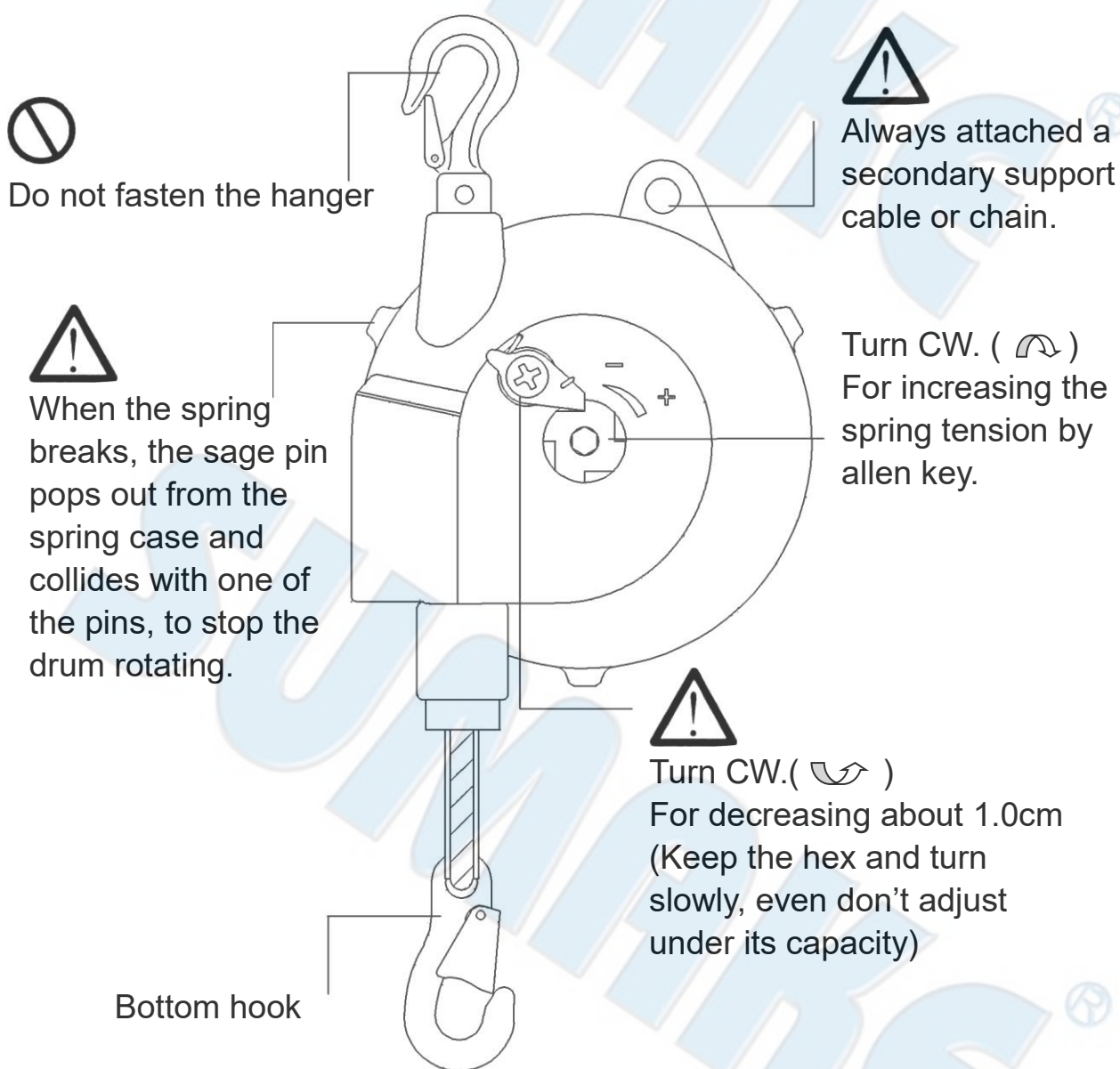



Operation Manual

SA-22030, SA-22050, SA-22070

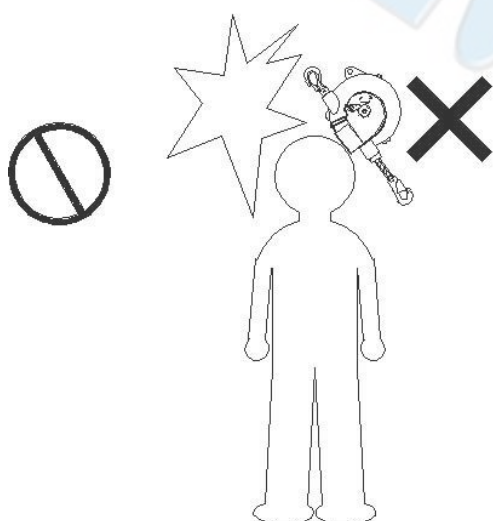
Read this manual before use



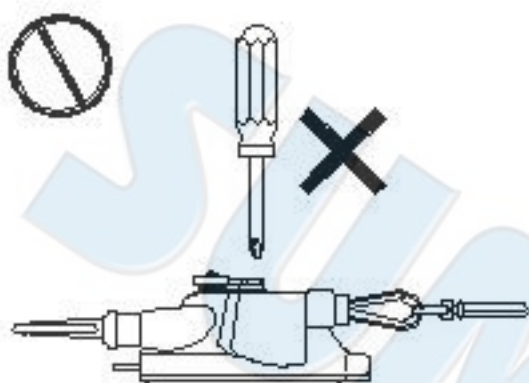
 Caution	 Prohibition
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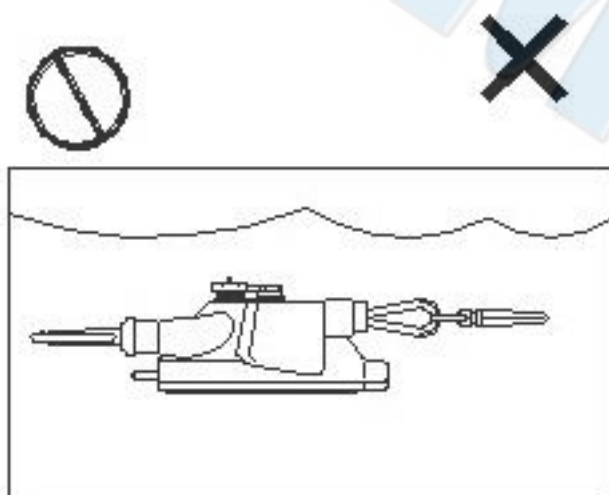
Incorrect use of the spring balancer could cause personal injury. Observe instruction in the manual and use the balancer correctly.



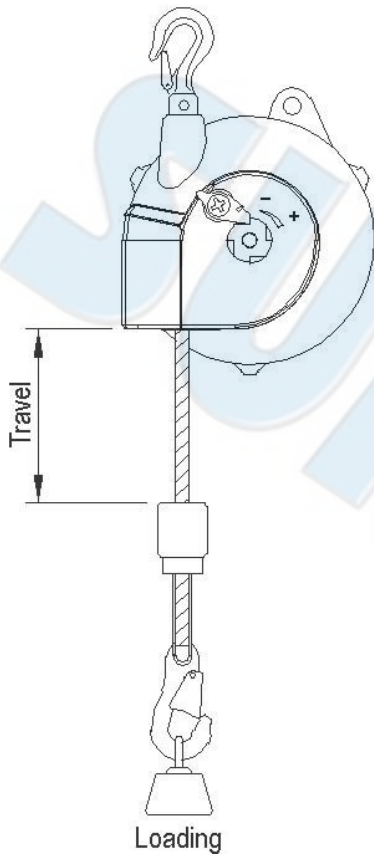
Never stand under the spring balancer.



Prohibition of disassembly.



Never put the spring balancer in fluid.



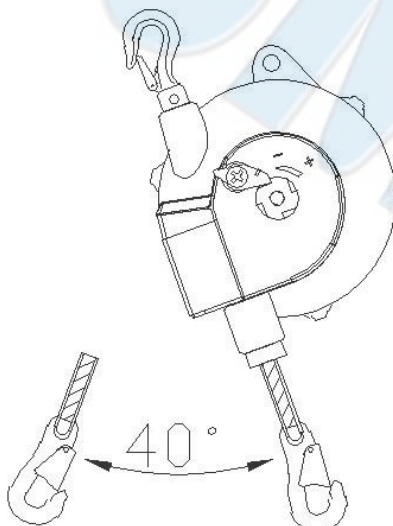
Don't twist and rub the cordage with cable during travel.
Don't load over its capacity.



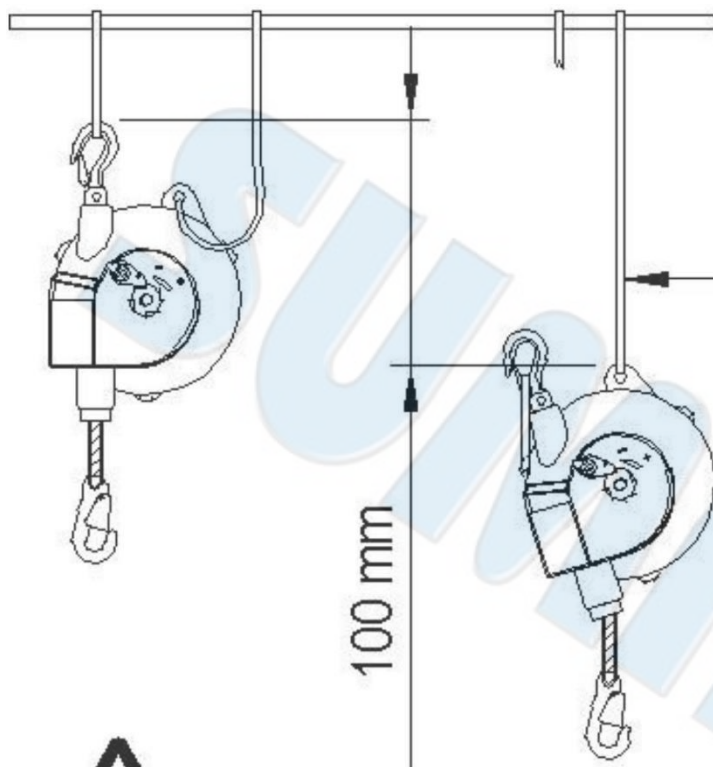
1. Take the tools off while remove the spring balancer, prevent the devise drop down.
2. Please remove the spring balancer and tools if rest for a long time.
3. Remove the spring balancer and devise before arranging the tension.

Application area:

Indoor and normal atmospheric conditions. Temperature range : $-10^{\circ}\text{C} \sim +40^{\circ}\text{C}$

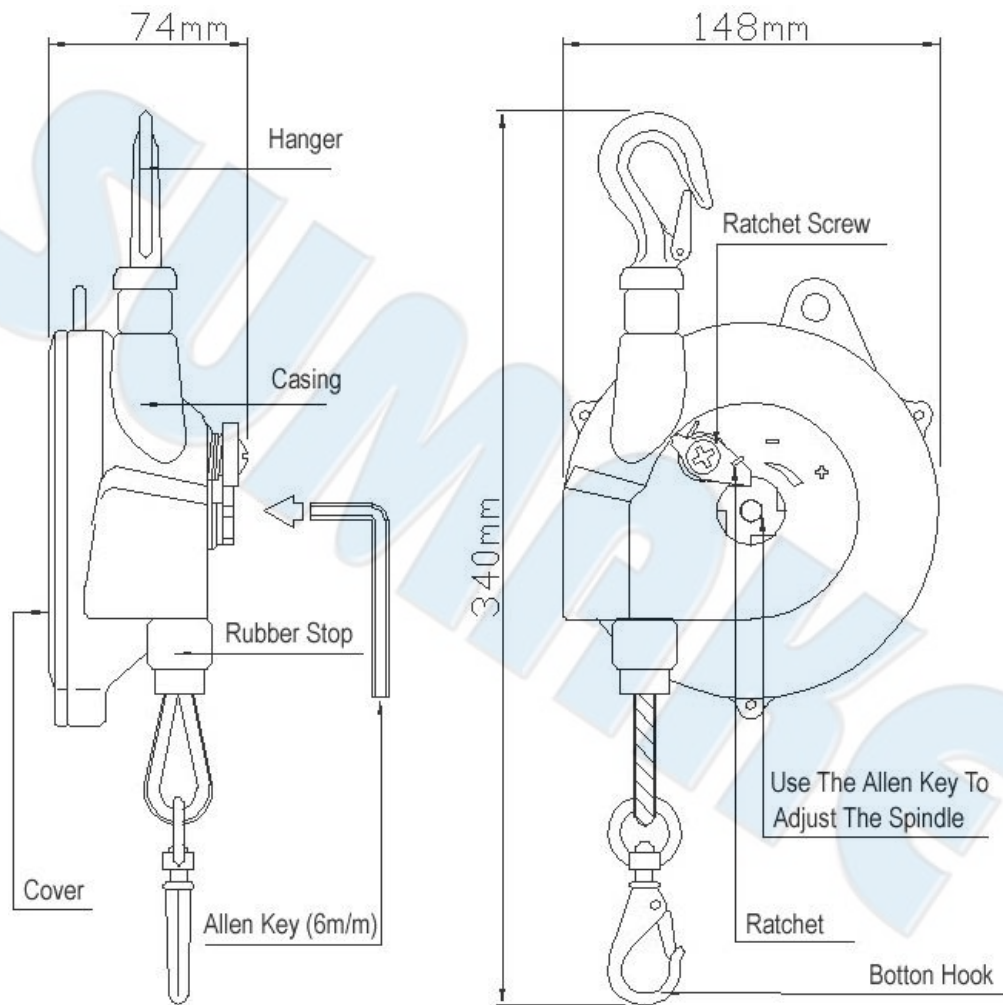


Large angle using will debase the wire rope's life, Under $\pm 20^{\circ}$ is better.



Safety support cable or chain is required but not provided with the product.

Leave some slack in the secondary support cable or chain to allow the balancer to rotate freely. The slack must be a suitable length so that the balancer will stop within 10cm when falling in case of failure of the hanger or the fitting.



Model	Capacity	Weight	Travel
SA-22030	1.5 – 3.0 kg	1.73 kg	1.3 m
SA-22050	3.0 – 5.0 kg	1.82 kg	1.3 m
SA-22070	5.0 – 7.0 kg	1.85 kg	1.3 m

1. Installation

- (1) Attached the spring balancer to the steady place.
- (2) Please attached a secondary support cable and install to the steady position.
- (3) Install the devise within the capacity to the bottom hook.
- (4) Please adjust the tension within the capacity after install the devise.

2. Checks before use

- (1) The hanger and bottom hook is steady and turn swivel.
- (2) The cable is complete.
- (3) The ratchet spring and spindle is steady.
- (4) The appearance is complete, no any damage.



EC DECLARATION OF CONFORMITY

We: **SUMAKE INDUSTRIAL CO., LTD.**

4F, No. 351, Yangguang St., Neihu District, Taipei City, Taiwan

declare in sole responsibility that the equipment

Equipment : **SPRING BALANCER**

Model/ Serial No. : **SA-22030(22050)(22070)**

to which this declaration applies, complies with these normative documents:

- Machinery Directive: 2006/42/EC

and conforms to the following EN standard,

- EN ISO 12100: 2010

Name and Signature/Position

Mike Su – Managing Director

Date and Place

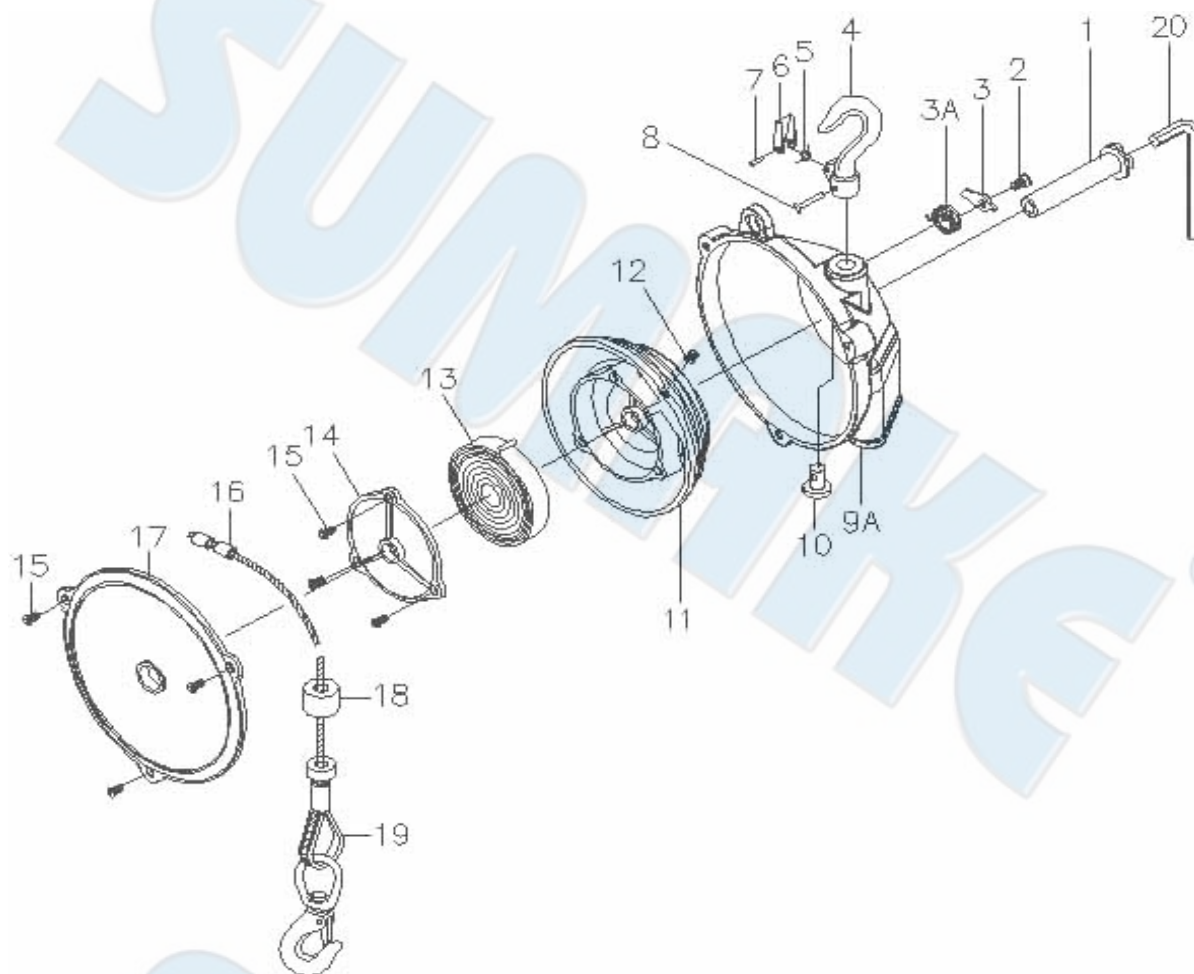
2022/12/1

Taipei, Taiwan

SA-22030(22050)(22070)-D-2306E-YMF

SA-22030
SA-22050
SA-22070

SPRING BALANCER (1.5-3KG)
SPRING BALANCER (3-5KG)
SPRING BALANCER (5.0-7.0KGS)



PARTS LIST

No.	Parts No.	Description	Q'ty
1	SA22030-01	Spindle	1
2	SA22030-02	Screw	1
3	SA22030-03	Ratchet	1
3A	SA22030-03A	Ratchet Spring	1
4~10	SA22030-09AS	Casing Set [Incl. 4, 5, 6, 7, 8, 9A, 10]	1
11&13	SA22030-13S	Spring Plate Set [Incl. 11, 13] [SA-22030]	1
	SA22050-13S	Spring Plate Set [Incl. 11, 13] [SA-22050]	1
	SA22070-13S	Spring Plate Set [Incl. 11, 13] [SA-22070]	1
12	SA22030-12	Screw	1
14	SA22030-14	Spring Cover	1
15	SA22030-15	Screw	6
16~19	SA22030-19S	Cable Set [Incl. 16(2), 18, 19]	1
17	SA22030-17	Cover	1
20	SA22030-20	Hex Spanner / rod	1

NOTE

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