

# MZM-011

## ROTARY TORSO



OWNER'S MANUAL





▲ Please carefully read this manual prior to assembling and using the machine.

We assume that you have read it when you are using it.

▲ Please fill out the warranty card carefully and keep it with receipt and stub for after-sales service.

▲ This manual may be modified along with improvement of the machine and we'll not give further notice about it.

▲ This manual should be well retained so that you can read it at any time.

# CONTENTS

INSTRUCTIONS.....	1
STRUCTURE.....	3
PRODUCT INTRODUCTION.....	4
SPECIFICATIONS.....	5
ASSEMBLY TOOLS.....	5
ASSEMBLY INSTRUCTIONS.....	6
TARGET MUSCLES.....	10
MUSCLE DIAGRAM.....	10
USAGE GUIDANCE.....	11
NOTICES.....	12
ROUTINE MAINTENANCE.....	13

# INSTRUCTIONS

1. This machine is only intended for use in organizations with training areas, sport associations, clubs and educational establishments.
2. The maximum user weight is 150kg (330pound). (NOTICE)
3. It must be used under the supervision of a coach in case of any accident or damage to the machine. (WARNING)
4. Children under 12 must not use the machine in case of severe injuries or even physical disability while cardiac patients are prohibited from using the machine. (DANGER)
5. If at any time during exercise you feel dizziness, nausea or any other discomfort, stop immediately and consult your physician.  
(WARNING)
6. It must be located stably on an even floor in case of slips during use. Enough clearance must be kept for safety; generally, a distance of 4 feet (1.2m) should be kept between the user and the center of the surrounding space.
7. Select appropriate weight resistance and adjust position prior to exercise.
8. Check if all set screws are tightened and whether handgrips are well fastened prior to use. Otherwise, using it is prohibited in case of any accident.  
(WARNING)
9. Adjust steel cables to proper lengths, make sure they are solidly, securely connected and move smoothly without any twist. Regular inspection must be implemented to avoid any error. If any problem, it must be solved by professionals instantly. For any fault with weight plate, guide rod or any other mechanical part, please contact professional to fix it immediately in case of accident as weight plates may fall off. (WARNING)
10. Please wear suitable clothes and shoes during exercise. (NOTICE)
11. 5 to 10 minutes of warm-up exercise must be taken prior to exercising on the unit.
12. Injury to health may result from incorrect or excessive training, so please

select appropriate weight resistance, proper exercise duration, and have workout in correct way. Consult a coach if necessary. (NOTICE)

13. No touching steel cables or any moving parts during exercise in case of injury to fingers. (DANGER)
14. Do not return to the starting position too quickly in case of any damage to the weight plates, instead, you must slow down when getting near. (WARNING)
15. The machine must be used in dry room in case of any damage.
16. Do not have movements beyond the machine's function. (WARNING)
17. Any adjustment to the machine which may interfere with users' exercises is not allowed to be made. (DANGER)

# STRUCTUR



# PRODUCT INTRODUCTION

Target muscles: Lumbar and Abdominal Muscles.

The unit has scientific, reasonable structure, and simplified, elegant look. Due to the movement trajectory that complies with the principle of human engineering, the exercise is safe and comfortable.

Tower frame: Quality drum-shaped tubes and steel are well welded to bring excellent durability.

Weight cage: It perfectly protects users from weight stacks and enhances usage safety.

Links: High-quality bearings used for links bring smoother movements.

Handgrips: Reasonably designed handgrips with high degrees of comfort help users to exert themselves more easily and bring smoother movements.

Shroud: Durable shrouds are made of strengthened ABS with once-molding technology.

User frame: Quality flat oval tubes (50\*120\*( $\geq 2.5T$ )/Q195) applied for user frame are solidly welded and never deform.

Cushion: One-step PU foaming technology gives the cushions ergonomic features and appropriate softness.

Pulley: Safe and durable pulleys are made of superb aluminum alloy with casting technology.

Steel cables: 6x19+1 strand construction; durable, safe; maximum load: 1000KG.



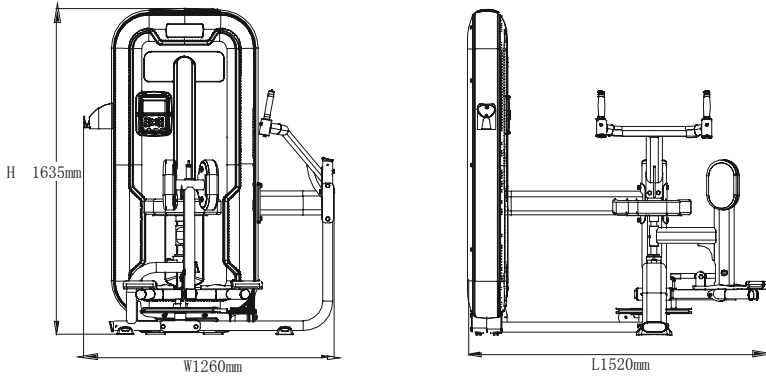
# SPECIFICATIONS

Unit dimensions: 1520mm(L)×1260mm(W)×1635mm(H)

Weight stack: 60kg (standard); 60~130kg (optional)

User weight: ≤150kg

Unit weight: 185kg (standard weight stack included)






# ASSEMBLY TOOLS

NO.	DESCRIPTION	SPEC.	QTY.
1	Screwdriver	Philips	1
2	Double open ended spanner	17×19	2
3	Socket wrench	19	1
4	Allen wrench	6mm	1
5	Allen wrench	5mm	1
6	Allen wrench	4mm	1
7	Allen wrench	3mm	1

# ASSEMBLY INSTRUCTIONS

1. Verify that there's adequate space surrounding this piece of equipment prior to assembling it.
2. Open the packing box, take out the parts and remove all packing materials. Classify all parts and tidily put them on vacant floor.
3. It requires at least two persons.
4. Assemble weight cage assembly.

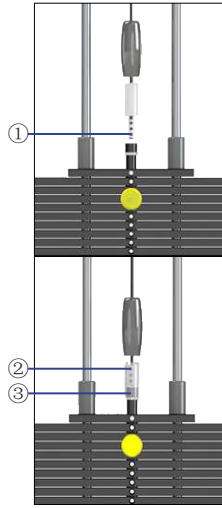
<p>(1)</p>  <p>Remove the front and rear shrouds; put them in safe area (No clashing or scratching!).</p>	<p>(2)</p>  <p>Assemble weight plates. Insert two guide rods into the corresponding mounting holes on the lower part of weight cage; pass them through shock pads; pass them through weight plates successively.</p>	<p>(3)</p>  <p>Assemble the head plate. Now the weight plates are assembled.</p>
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(4)



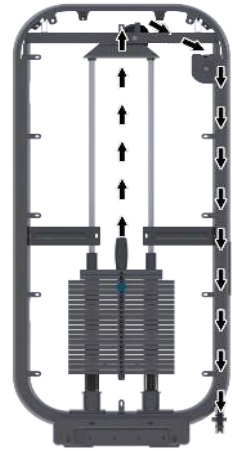
Get circlips on the upper parts of two guide rods in right positions; fix guide rods.

(5)



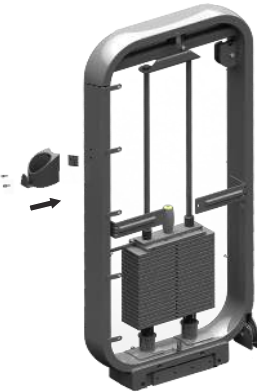
Pass steel cable through cord lock; tighten screws.  
 ① Tighten the 3 screws as much as possible.  
 ② The bolt must make at least 10 turns towards the selector bar.  
 ③ Tighten hexagon nut.

(6)



Assemble steel cable as the diagram shows; check whether pulleys move smoothly.

(7)



Assemble water bottle holder.

(8)



Assemble the front shroud. Fasten it to tower with the designated screws.

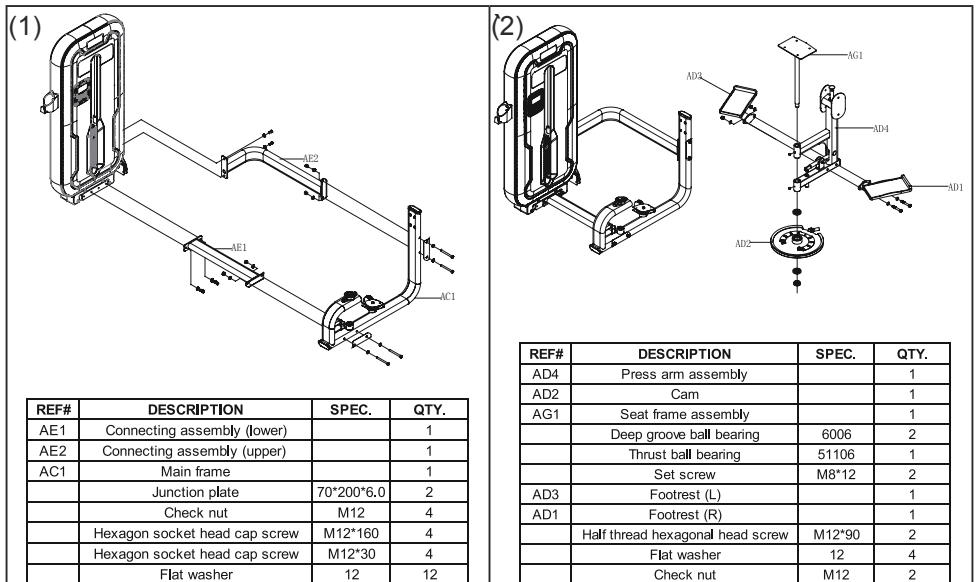
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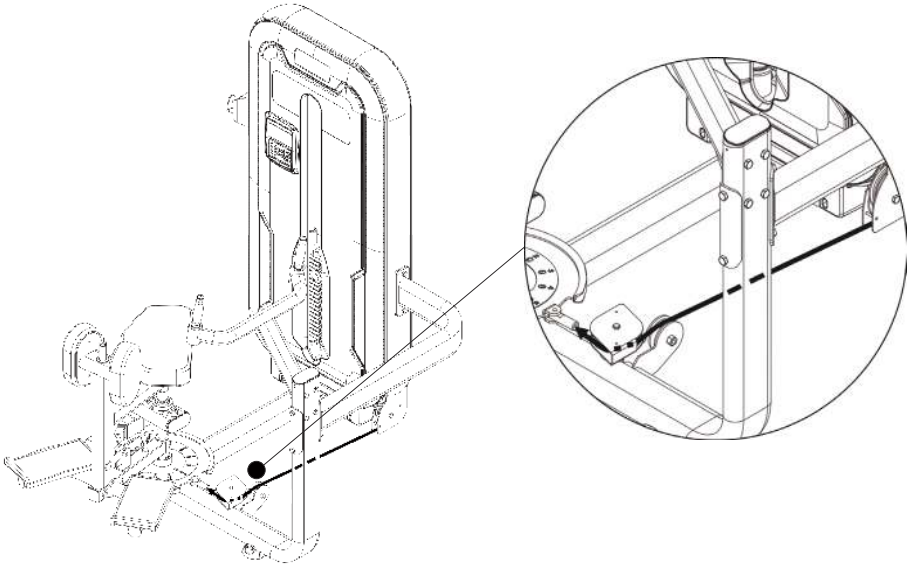
Assemble the rear shroud. Fasten it to tower with the designated screws. Now weight cage is assembled.

## 5. Assemble the user frame

- (1) Put weight cage which has been assembled in the area where the machine will be used. Check whether all the other parts are there according to the diagram; remove packing materials and place the parts tidily. Assemble the main frame; connect the upper and lower connecting assemblies, junction plates, and weight cage with screws as the diagram shows. (Diagram 1)
- (2) Attach Cam (AD2) and Footrests (AD1; AD3), Seat frame assembly (AG1) and Press arm assembly (AD4) to main frame. Tighten all the screws. Fix steel cables and adjust them so they can move smoothly without any twist or slack. (Diagram 2)
- (3) Assemble steel cables as the diagram shows; make sure that they move along the trajectory as the arrow shows. (Diagram 3)
- (4) Assemble Seat cushion (J09), Handrail assembly (AF1) and Knee pads (J05). (Diagram 4)
- (5) Recheck all links and tighten all loose screws in case of slack.
- (6) Finally, a trial must be taken by professional to assure that it's correctly assembled.

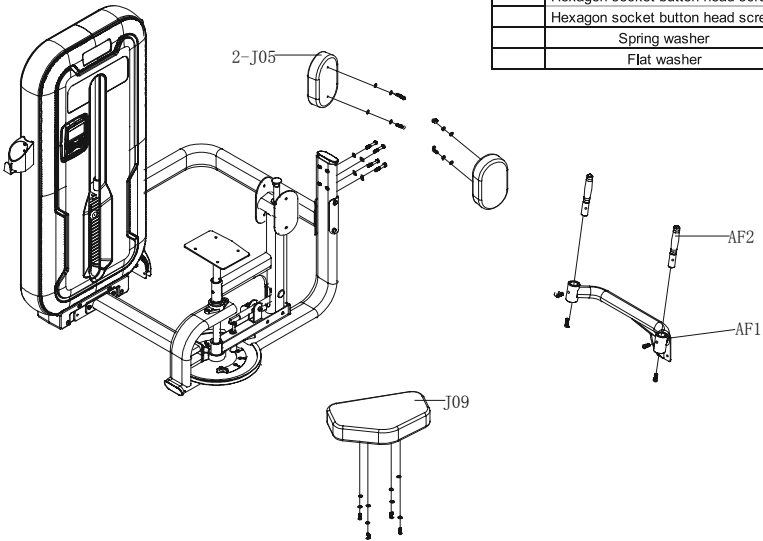


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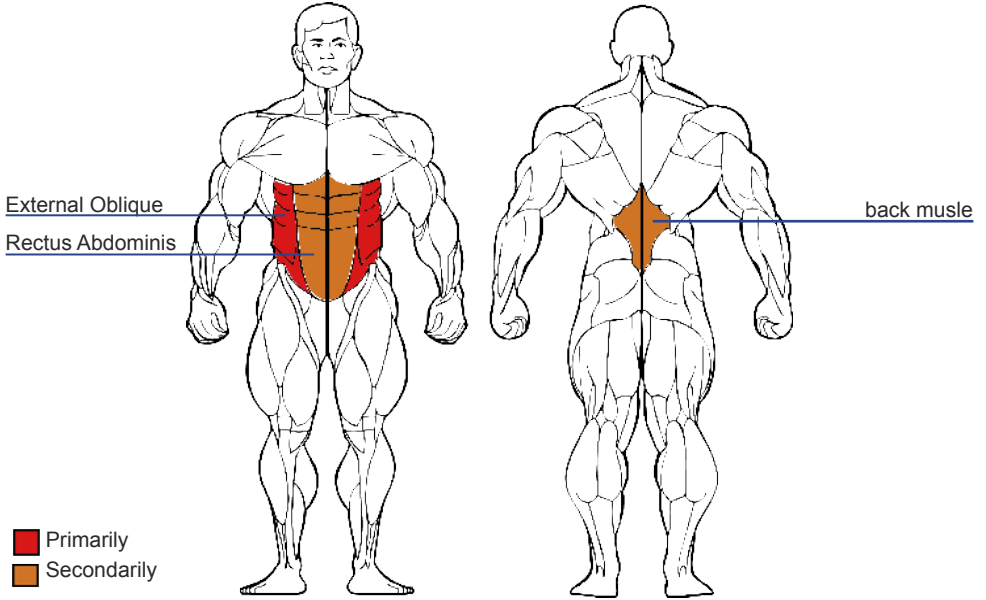


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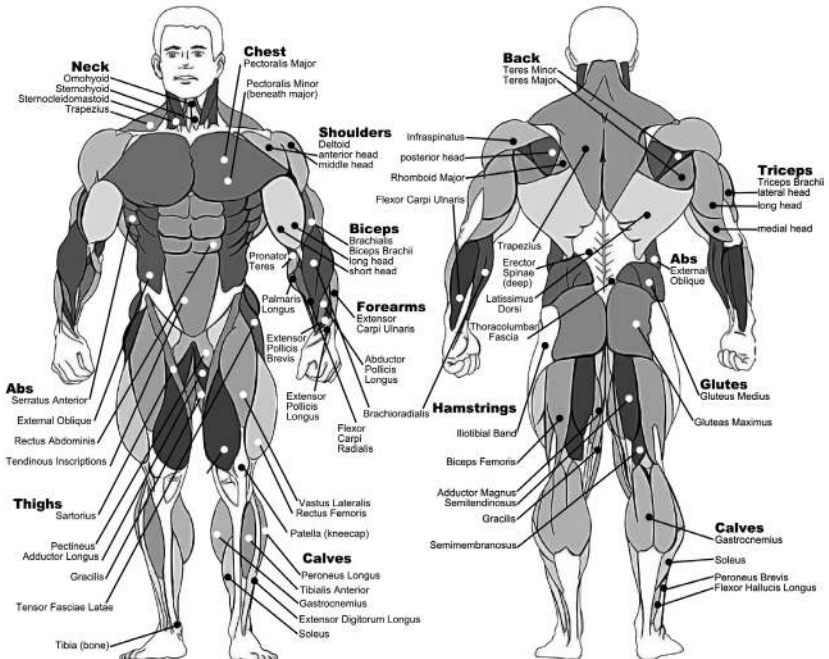
REF#	DESCRIPTION	SPEC.	QTY.
J05	Knee pad		2
J09	Seat cushion		1
AF1	Handrail assembly		1
AF2	Handgrip		2
	Hexagon socket head cap screw	M10*60	4
	Flat washer	10	4
	Hexagon socket button head screw	M10*30	4
	Hexagon socket button head screw	M8*25	8
	Spring washer	8	8
	Flat washer	8	8



# TARGET MUSCLES



# MUSCLE DIAGRAM



# USAGE GUIDANCE

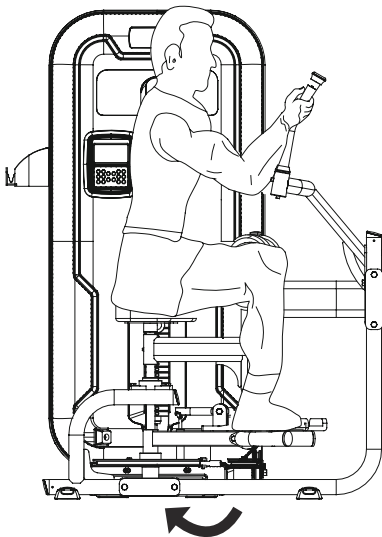
## Instructions

Insert selector pin into weight stack at a suitable resistance level. Please consult a coach if you are unsure on how to use this machine or experience any sharp pain during the exercise. Step on the footrests with both feet and place the inside of your knees against knee pads.

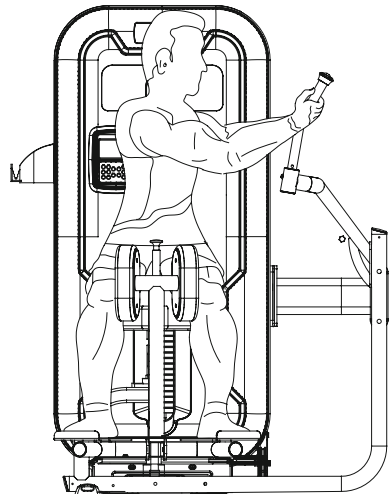
## Exercise Movement

Grasp both handles firmly. Squeeze your knees against the pads. Rotate your upper body in one direction to the maximum extension. Pause for a moment and then return to the starting position. Repeat the movement. Once you have completed the desired repetitions to one side rotate your upper body to the opposite side and perform the exercise as explained above. Ensure this exercise is executed without causing strain or injury, while maintaining optimal upper body position and that you perform it in a smooth, controlled motion.

START



FINISH



# NOTICES

1. 5~10 minutes of warm-up must be taken prior to having exercise on this machine. Record the time while having free exercise which aims to activate the joints in case of injury to them during training.
2. Inspection must be carried out prior to using the machine. For any potential problem, please contact the coach or maintenance staff immediately. Do not use it before it's assured that it can operate correctly.
3. Do not use the machine if there's a sign on it that tells it malfunctions.
4. Please take lots of high-protein foods, vegetables and fruits. Have a meal 40min prior to the exercise and another meal no sooner than 30min after it. A small amount of water can be taken during exercise.
5. Inhale when you exert yourself; exhale when you relax. Adjust breath according to movements.
6. The next workout for same muscle must be taken after at least 48 hours of rest.
7. Weight resistance should be selected according to personal condition. Excessive weight must not be taken in case of injury to muscles. The training must be proceeded in an orderly way and step by step. It is normal to feel slight pain in the muscles during the first workout.



# ROUTINE MAINTAINANCE

## 1. Daily Inspection

Clean and inspect machine frame everyday; clean upholstery and all decorative parts; inspect steel cables and the terminals to see if there's abrasion.

Clean upholstery, decorative parts and machine frame with neutral soapy water, remove dirt, oil stain and perspiration on the surfaces and air dry them completely. Inspect the frame and see if there's rupture, rustiness or any other damage. Make sure that soldering points are fixed and fastening parts are correctly tightened.

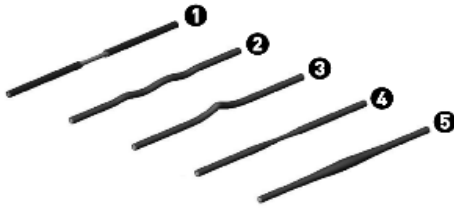
Fastening parts may get loose during usage; therefore, please inspect all of them, like nuts, bolts, screws, make sure they are well tightened and correctly assembled. The machine can only be put into use when no problem is found.

Regular inspections of steel cables, pulleys, fastening parts and other accessories must be carried out. Frequently used steel cables may be damaged and broken due to abrasion. If a cable is damaged and broken suddenly, it may cause severe injuries to users. Hence, daily inspection of steel cables and connection at the terminals must be implemented. Check whether there's kink or abrasion, whether sheath and terminals are damaged. Special attention must be paid to the terminals and the parts of steel cables which are in contact with pulleys. Damaged steel cables must be replaced immediately in case of injury to users.

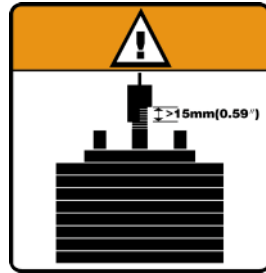
Characteristics of Obvious Damages (Picture 1)

- (1) A tear or crack in the cable sheath that exposes the cable; or the part of sheath which pulley contacts is cracked.

Picture 1



Picture 2



- (2) Z-type twist or a curled sheath.
- (3) Kinks (Internal of cable may be damaged.).
- (4) Necking-A stretched cable sheath
- (5) Inflated sheath.

In addition, the following inspections must be carried out.

- (1) Make sure that steel cables are correctly adjusted and securely fastened onto the top of weight plates. Make sure that cables are securely connected to pulleys and all assemblies are well fixed, all the seven cable strands pass through the selector bar and screws are well tightened.
- (2) Wipe and clean all warning/instruction stickers. (Picture 2)
- (3) After some time of use, steel cables may get loose due to stretches. It can be solved by adjusting the hexagon nut on the head plate in time; tighten the hexagon nut in case of slack. If it fails, cut a small section of the cable and refasten it. (For adjustment and assembly of steel cables, please check ASSEMBLY INSTRUCTIONS (Page 7) for details.)

## 2. Weekly Inspection

Clean upholstery and decorative parts; clean and lubricate cable rod end; clean and lubricate guide rods; inspect cables, connecting parts, and cable tension; inspect cable accessories; inspect pulleys; inspect each weight plate and selector pin; inspect and lubricate bearings and bushings; inspect seat

adjustment system; test the pop pin.

- (1) Clean upholstery with special detergent. Note: It must be neutral detergent. Never use detergent which contains solvent, ethanol, ammonia or petroleum.
- (2) Inspect heim joint and assure that shoulder screw is well tightened. If there's noise, lubricate it with silicon oil. Lubricate heim joint with silicon oil as shown (Picture 1, Page 16). Wipe them with cloth to remove excessive oil.
- (3) Inspect the exposed parts of guide rods; keep them clean; remove dirt and oil stain on the rods with soft cloth. (Note: You can only inspect, clean and lubricate guide rods after dismantling shrouds.)
- (4) Spray silicon oil onto the exposed parts of guide rods or cloth, and then wipe guide rods with cloth. Never lubricate the rods when the machine is in use; the parts which are hidden in weight plates can only be lubricated after the weight plates are removed, otherwise, it will cause severe injuries.

Remarks: Do not use petroleum-based lubricant; it will lead to rapid accumulations of dirt and hair on weight plates and may get the weight plates stuck to each other

- (5) Inspect and test steel cables and the links thoroughly every week; inspect cable tension.
- (6) Inspect cables connections at weight plates. Make sure that the screw makes at least 10 turns (15mm) towards the selector bar. Inspect the two thin nuts at both ends of the nut and ensure that they are securely tightened.
- (7) Inspect steel cables; pay special attention to parts which are closed to pulleys and cams. Inspect links at cams; inspect bolts which pass through parts on the top of cams and assure that set screws are tightened.
- (8) Inspect steel cables; make sure all connections are firm and secure,

tension is appropriate and steel cables are correctly fixed on the top of weight plate.

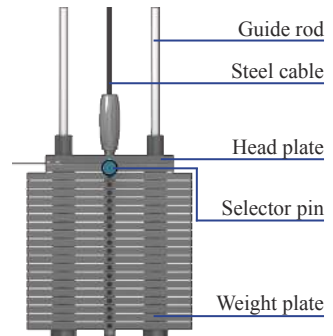
- (9) Inspect pulleys: check if there's abrasion, flaw, breach or deletion. Abrasion of pulley surface may lead to severe damage to steel cables. Therefore, abraded or damaged pulley must be replaced immediately. Make sure pulleys can revolve flexibly during usage and do not sway to left and right with big amplitude. Big amplitude indicates that fastening bolt or bearing is damaged; in this case, dismantle pulley and inspect it. If any damaged bearing, it must be replaced immediately.
- (10) Inspect weight plates and selector pin: check if there's burr or damage; wipe each weight plate and guide rod to remove dirt and dust. Make sure that selector pin can be inserted into each weight plate and stably retained there (Picture 2).
- (11) Inspect bearings and lubricate shaft bushing: it's recommended that a small amount of silicon oil should be used for lubricating shaft bushing which is used for supporting shaft. Spray the oil onto shaft and twist the shaft several laps inside shaft bushing; meanwhile, check whether the bushing is excessively abraded or damaged.

Picture 1

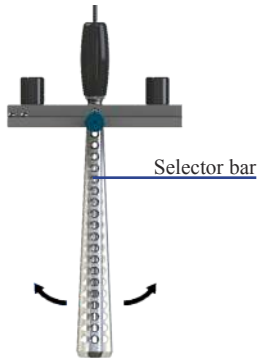


Lubricate it regularly.

Picture 2



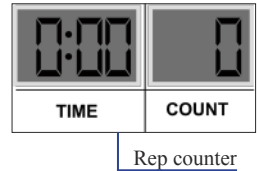
Picture 1



Picture 2



Picture 3



### 3. Monthly Inspection

- (1) Inspect main frame and press arms: lubricate the pop pin; inspect and lubricate seat post; inspect all fastening parts.
- (2) Inspect main frame and press arms: check if they are complete and work normally; check if there's cracking, peeling paint or rustiness. Repair or replace the parts according to actual condition.
- (3) Check if main frame is cracked. Pay special attention to solder joints. If any crack, suspend the machine immediately and contact maintenance staff to repair it.
- (4) Check if there's rust or peeling paint on frame; if yes, wipe it gently with wet grainy cloth, dry emery cloth, or steel wire (fine thread) ball and then repair paint chips.
- (5) If the selector pin cannot be easily inserted into weight plate, check whether the selector bar swings leftward and rightward when it's in vertical position. (Picture 1)
- (6) Pull out the pop pin; spray a small amount of silicon oil onto it; wipe it and remove excessive oil. (Picture 2)
- (7) The number of repetitions and workout duration can be displayed on rep counter during exercise. If not, battery needs to be replaced. Remove shroud, you can see an AAA battery, replace it with a new one. It's

recommended that it gets replaced monthly. (Picture 3)

#### 4. Annual Maintenance

- (1) Dismantle shrouds and carry out necessary maintenance. It's recommended that one should dismantle weight plates, clean and inspect them thoroughly. Carefully take steel cables and guide rods off weight plates; clean and inspect each weight plate; inspect guide rod bushing. If any damaged part, replace it immediately. Clean guide rods and the selector bar; assemble weight plates and shrouds. We recommend that abraded or damaged cables get replaced during regular maintenance; and all cables should be replaced with new ones annually.
- (2) Inspect and lubricate the pop pin.



