Biceps Curl

V-KEY-SL-40

SERVICE MANUAL

ISSUED 2026-01-26

JOHNSON HEALTH TECH

V1

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CHAPTER 1. SERIAL NUMBER LOCATION

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The serial number sticker is located on the left side of the frame.

CHAPTER 2. SAFETY AND MAINTENANCE

2-1 IMPORTANT SAFETY INFORMATION

It is the sole responsibility of the purchaser of Vision Fitness Systems products to instruct all individuals, whether they are the end user or supervising personnel on proper usage of the equipment.

PROPER USAGE: Do not use any equipment in any way other than designed or intended by the manufacturer. It is imperative that Vision Fitness Systems equipment be used properly to avoid injury. Keep hands and feet clear at all times from moving parts to avoid injury.

WARNING: Serious injury can occur on this equipment. Follow these precautions to avoid injuries.

1. Never allow children on strength equipment. Teenagers must be supervised at all times while using this equipment.
2. All warnings and instructions should be read and proper instruction obtained prior to use.
3. Cease exercise if you feel faint or dizzy. Obtain a medical exam before beginning an exercise program.
4. Keep body, hair, clothing, and fitness accessories free and clear of all moving parts.
5. Inspect the machine before use. DONOT use the machine if it appears damaged or inoperable.
6. Check to see that the select or pin is completely inserted into the weight stack.
7. NEVER use the machine with the weight stack pinned in an elevated position.
8. Never use dumbbells or other means to incrementally increase the weight resistance. Only use the means provided directly from the manufacturer.
9. This equipment should only be used in supervised areas where access and control are regulated by the owner.

Check for Damaged Parts

1. DO NOT use any equipment that is damaged and or has worn or broken parts. Use only replacement parts supplied by your local Vision dealer.
2. MAINTAIN LABELS AND NAMEPLATES: Do not remove labels for any reason. They contain important information. If unreadable or missing, contract a customer service representative for a replacement.
3. SECURE EQUIPMENT: All equipment must be secured to the floor to stabilize and eliminate rocking or tipping over where applicable. This must be performed by a licensed contractor.
4. MAINTAIN ALL EQUIPMENT: Preventative maintenance is the key to smoothly operating equipment as well as keeping your liability to a minimum. Equipment needs to be inspected at regular intervals.

2-2 MAINTENANCE

2-2-1 Inspect Cables (Weekly)

It is important for a facility to check cable conditions weekly. If any of the following are noticed, please put the unit “out of order” and contact Vision Fitness for a replacement cable.

1. **Fractures:**

   Casing can crack or fracture under strains during use. Any crack in the casing merits cable replacement even if no wire rope is exposed. Be especially observant for fractures near the components on the cable assembly.

2. **Twisting/Binding:**

   Inspect casing to ensure wire rope is not twisting within its casing. Any sign of the cable twisting should be replaced immediately.

3. **Bulging:**

   Internal wire rope strands can break within and coil causing a bulge to appear. Cable should retain same outside diameter throughout.

4. **Frayed/Exposed Wire:**

   Any exposed wire rope protruding through the casing or at either end.

5. **Flattened:**

   A section of cable is compressed and will not retain its shape (outside diameter).

6. **Bent:**

   Cable has ‘kink’ and prohibits cable from laying straight. Wire rope may be unraveling beneath casing and is compromised warranting replacement.

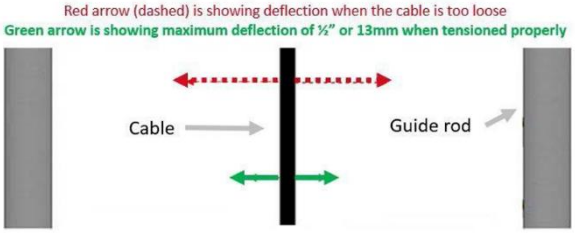
7. **Ends Separating:**

   Watch for component end of cable to pull away from cable assembly- look for exposed wire rope. Often times the oil from inside the cable jacket will start to leak out which can cause the cable to become brittle over time.

2-2-2 Tensioning Cables (As needed)

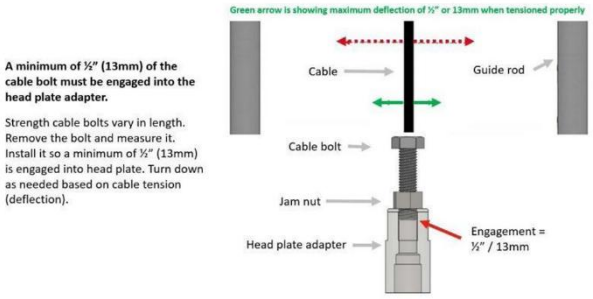
Cables can stretch over their life. It's important to check for proper tension and inspect for damage. Without proper tension, users will lose some range of motion and excess wear to the cables can occur.

Checking Tension:



1. Unpin the weight stack pin from the stack.
2. From the midway point of the cable bolt and top of weight stack, use your finger to move the cable from side to side. You should see no more than ½" (13mm) of deflection (about the width of your finger) before the top weight plate starts to move or you feel resistance from the cable.
3. If you have more than½" (13mm) of deflection, follow the tensioning procedure on the following pages.

Tensioning Procedure:

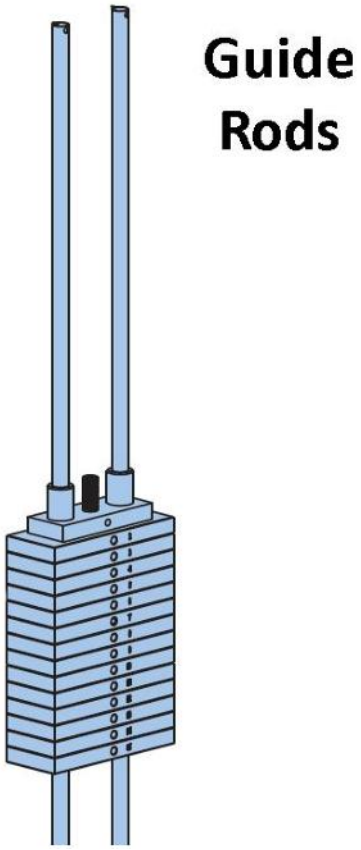


1. Unpin the weight stack pin from the stack.
2. Remove the cable bolt from the head plate adapter.
3. Turn down the cable bolt so ½" (13mm) of the bolt is engaged into the head plate adapter (see image to the right)
4. Check cable tension. If you have no more than ½" (13mm) deflection the cable is tensioning properly (see checking for proper tension procedure above) •
   - If you have too much deflection, turn the cable bolt down a few turns and check tension again. Do this until proper deflection is achieved.
5. Tighten jam nut down the cable bolt so it is tight to the head plate adapter. You must secure it with a wrench. Finger tight is not good enough.
6. Use the weight stack pin and pin50-60 lbs. Then perform 5-7 reps to set/stretch the cable.
7. Check for proper tension (See above section).

8. Check to make sure the weight stack pin goes into each weight plate. If the pin touches the bayonet, that is fine as long as the pin can be inserted completely.
    - If not, loosen the jam nut on the cable bolt and turn out 1 thread then recheck.

2-2-3 Lubricating Guide Rods (Monthly)

Vision Fitness requires PTFE based non-aerosol lubricants
Note: PTFE is Polytetrafluoroethylene (Teflon) Procedure:



1. With a clean rag, wipe the guide rods and top of the weight stack so they are free of dirt and dust.
2. Spray a different rag with the required lubricant and wipe up and down the guide rod gently.
3. Holding the lubricant bottle 1”-2” from the top weight plate bushings, spray a small amount of lubricant between the bushing and the guide rod. Allow the lubricant to run down the guide rod inside the weight stack.
4. Get on the unit and with a light weight, do a few reps. Listen for noise and feel for any friction. Repeat Step 3 and 4 as necessary.
5. Wipe any over spray off the top weight plate.

2-2-4 Inspect Hardware (Monthly)

As equipment settles to the floor after being relocated and general use, frame bolts may begin to loosen. If this is noticed, follow the below steps to secure the bolt. It is best to do this repair at the end of the day as the facility slows down as it may take 24 hours for the Vibr-Tite to cure/set.

1. Loosen the bolt in question to expose the bolt threads.
2. Apply Vibra-Tite red thread locker to the bolt threads.
3. Tighten the bolt.

2-2-5 Checking Bearings (Monthly)

Bearings play a vital role in the functionality of moving parts. However, over time, these bearings are susceptible to wear and damage. Therefore, it is essential to regularly check for any signs of bearing damage.

To assess bearing condition, utilize two senses: touch and hearing. By feeling and listening to the movement of the frame, you can detect potential issues with the bearings. If you suspect that a bearing is dam aged, it is crucial to take immediate action and replace it promptly.

By proactively monitoring and addressing bearing damage, you can ensure the smooth and efficient operation of the machine, prolonging its lifespan and reducing the risk of malfunctions.

2-2-6 Cleaning

Machines should be regularly cleaned. Approved cleaning materials and information can be found in the guide Cleaners, Disinfectants, and Lubricants (NB-2401006) bulletin listed on Online Remedy and CS Web.

2-2-7 Supplemental Documentation

Online Remedy and CS Web contains additional supplementation for Vision products that have a wealth of information that may not be explicitly covered in this document.

- Cleaners, Disinfectants, and Lubricants **(NB-2401006)**
- Strength Cable and Belt Guide **(NB-2401007)**
- Cleaning and Maintenance Checklist- Strength **(NB-2401008)**
- Assembly and Installation Guidelines **(NB-2401009)**

CHAPTER 3. ASSEMBLY GUIDES

Below are the assembly guides for each model. Assembly guides can also be found in each frame's individual Owner's Manual. Strength equipment must be secured to the floor after assembly is complete.

3-1 Leveling and Securing Strength Equipment

Leveling

All Keystone machines have a minimum of a single adjustable foot leveler. This eliminates the need for the leveling shims.

Securing Strength Equipment

Vision Fitness recommends that all stationary strength equipment be secured to the floor or wall to stabilize equipment and eliminate rocking or tipping over. Vision requires specific pull-out force requirements shown below. Use a licensed contractor to ensure the required retention force is met.

<u>All Flooring</u>

- Each anchoring fastener must withstand 3.3 kN (750LBS) pull-out force from the floor.
- Anchor the exercise equipment at all provided locations.
- Understand where all bolt-down points are located on the exercise equipment and mark the locations prior to drilling holes into the floor.

<u>Wood/Tile/Rubber Over Concrete Sub-floor</u>

- Understand the thickness of the flooring material. Add this height to the overall length of the anchoring fastener when selecting fastener length to ensure proper embedded depth into concrete flooring.

3-2 General Torque Specifications

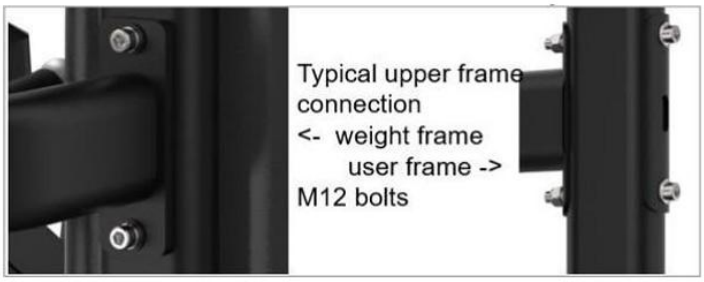
Below is a list of torque specs you should follow while checking tightness of your strength machine's hard ware. It is important to note as well that we recommend applying red Vibra-Tite thread locker to all frame bolts not using a nyloc nut and axles.

Connection/Bolt Size	Torque
Axle Arm	180 N-m / 133 ft-lbs.
M12 Bolts & Nuts (flow drill)	100 N-m / 74 ft-lbs.
M10 Bolts & Nuts (flow drill)	77 N-m / 57 ft-lbs.
M10 Bolts (rivnut)	40 N-m / 30 ft-lbs.
M8 Bolts	25 N-m / 18 ft-lbs.
M8 Bolts (Plastic) & M6 Bolts	15 N-m / 11 ft-lbs.
Pad bolts	10 N-m / 7 ft-lbs.

Important: Never used power tools when installing a bolt that has a torque spec.

3-3 Frame Connections

Any frame connection bolt should have Vibra-Tite Red Gel applied to the threads during assembly or anytime the bolt is used to re-assemble a unit.

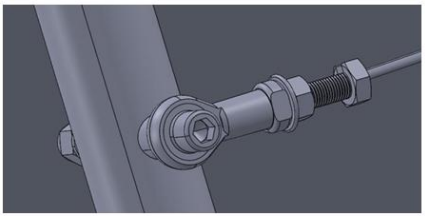


M12 bolts should be torqued to 100 N-m if it is being used with a nyloc nut.

M12 bolts should be torqued to 100 N-m if it is being used in a rivnut. Vibra-Tite Red Gel should be applied to the bolt threads after assembling the washer

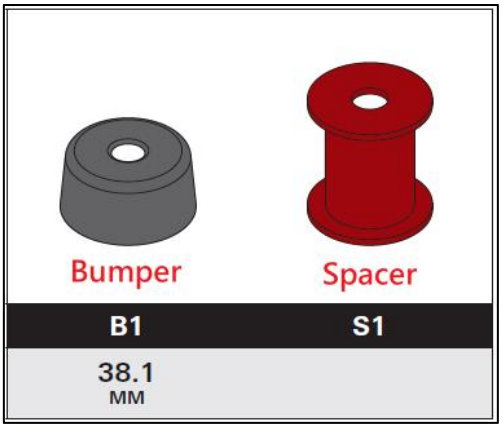
3-4 Tie Rod Ends

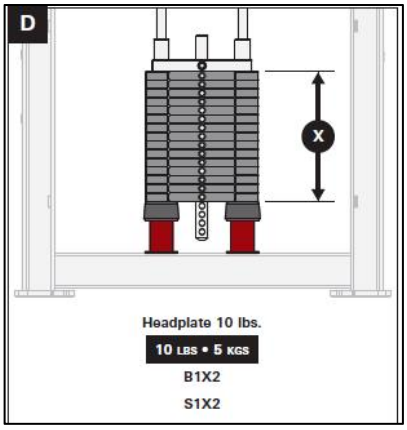
Apply grease to the tie rod bearing before installing it. Once installed, torque the apply Vibra-Tite Red onto the bolt threads and torque to 100 N-m /74 ft-lbs.



3-5 Frame Assembly

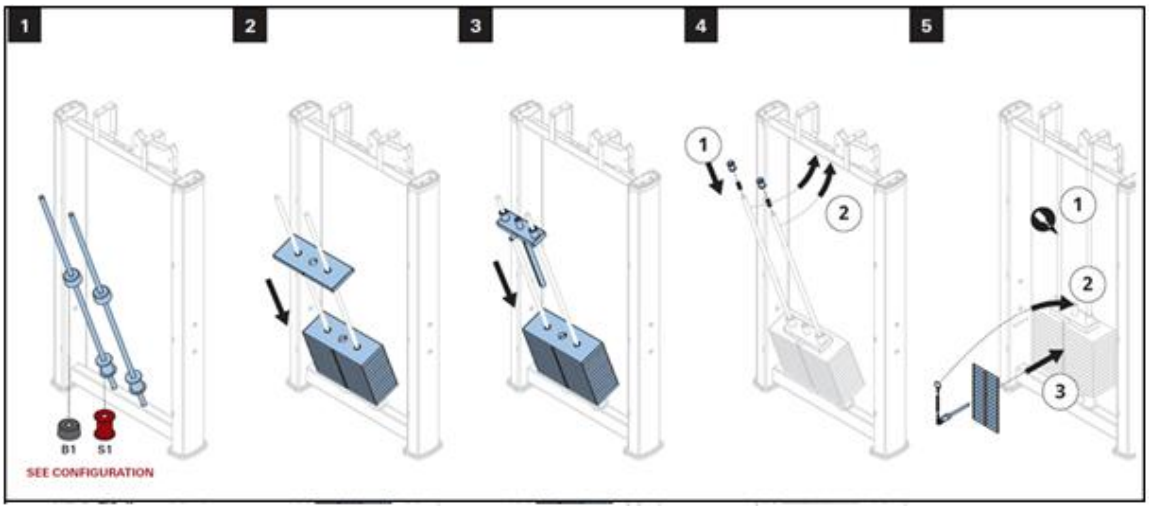
MODEL	CONFIGURATION	BUMPERS	SPACERS	DECALS	WEIGHT PLATES
V-KEY-SL-40 BICEPS CURL	D	B1	S1	D4	X= 15 X 10 LBS. + HEADPLATE

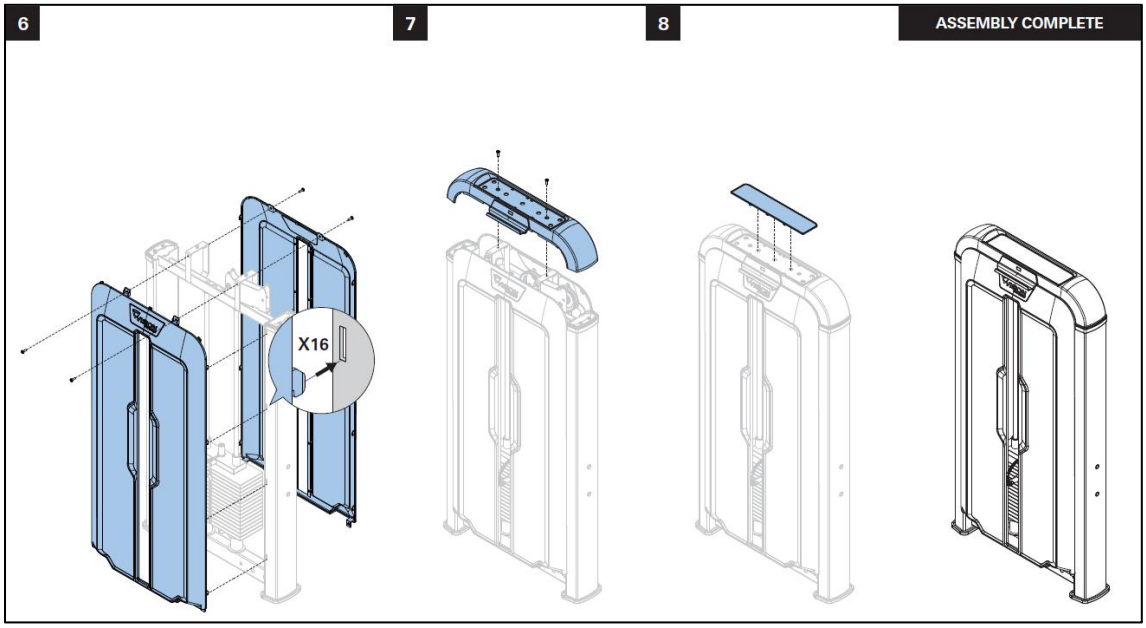




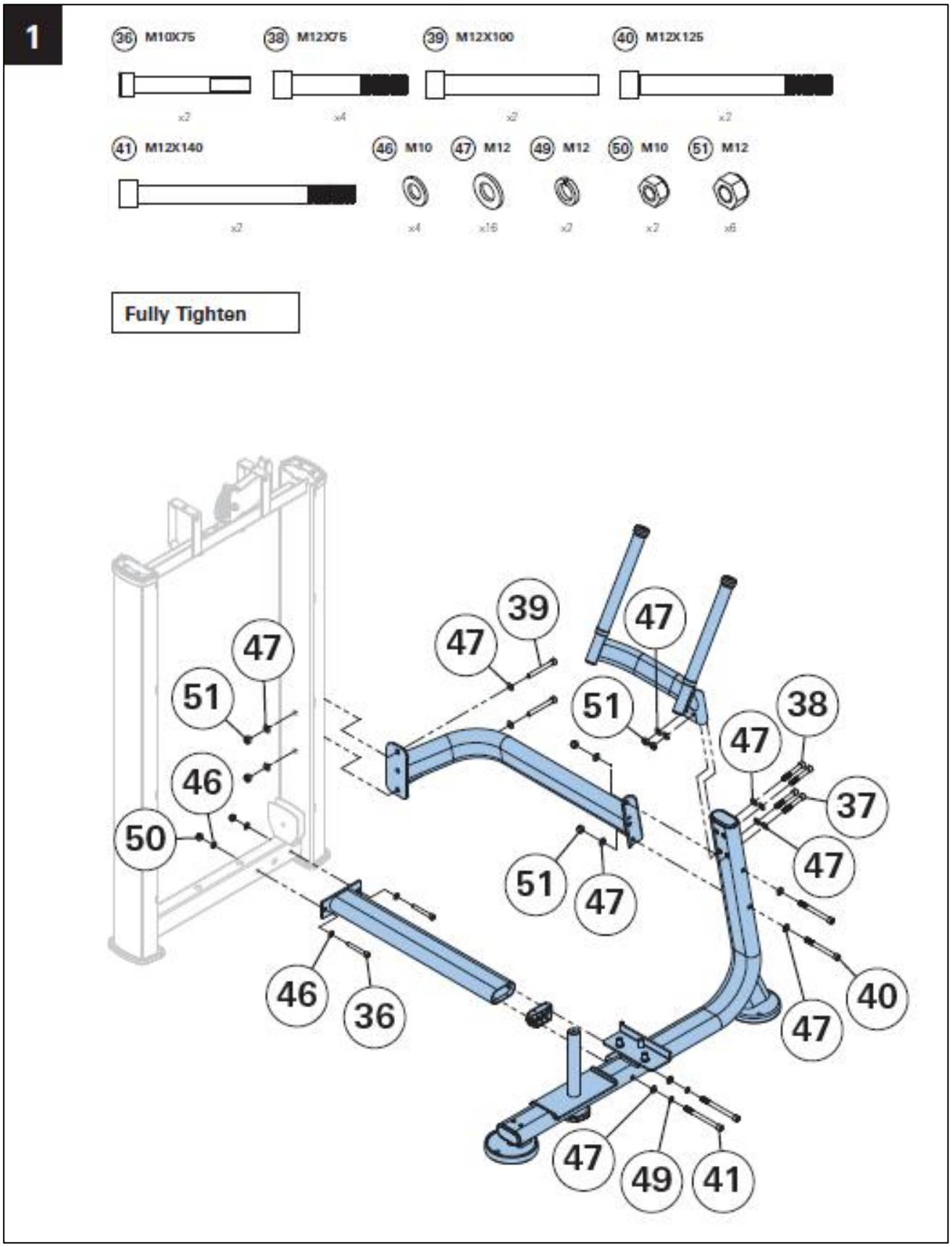
Tip – The weight stack stickers can be applied in one step following this method:

1. Peel the backing away from the top sticker ONLY (do not detach the top sticker from the other stickers on the sheet).
2. Place the top sticker against the top weight plate.
3. Pull the backing down and away from each lower sticker while simultaneously pressing the sticker to its weight plate.





3-6 V-KEY-SL-40 Assembly

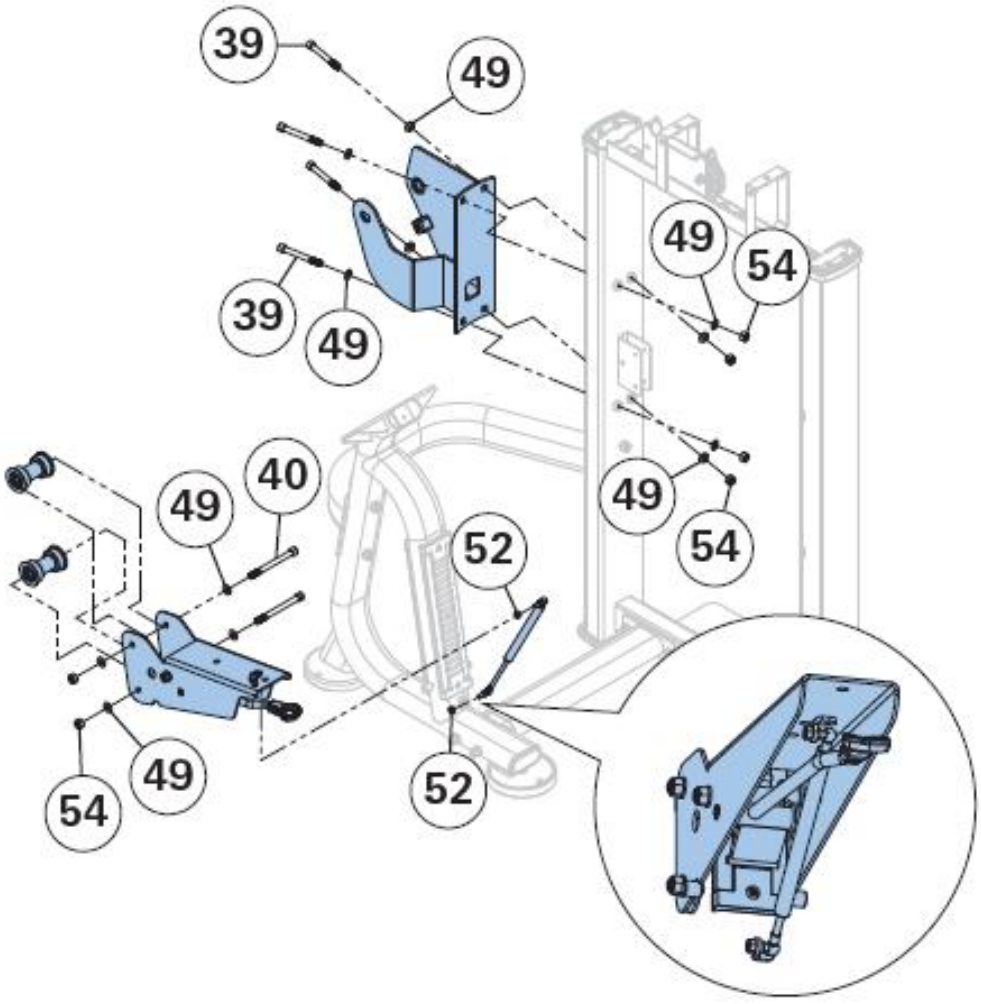


2

Fully Tighten

Seat assembly notes:

- Two people should work together to install this part.
- A long-handled punch is recommended.



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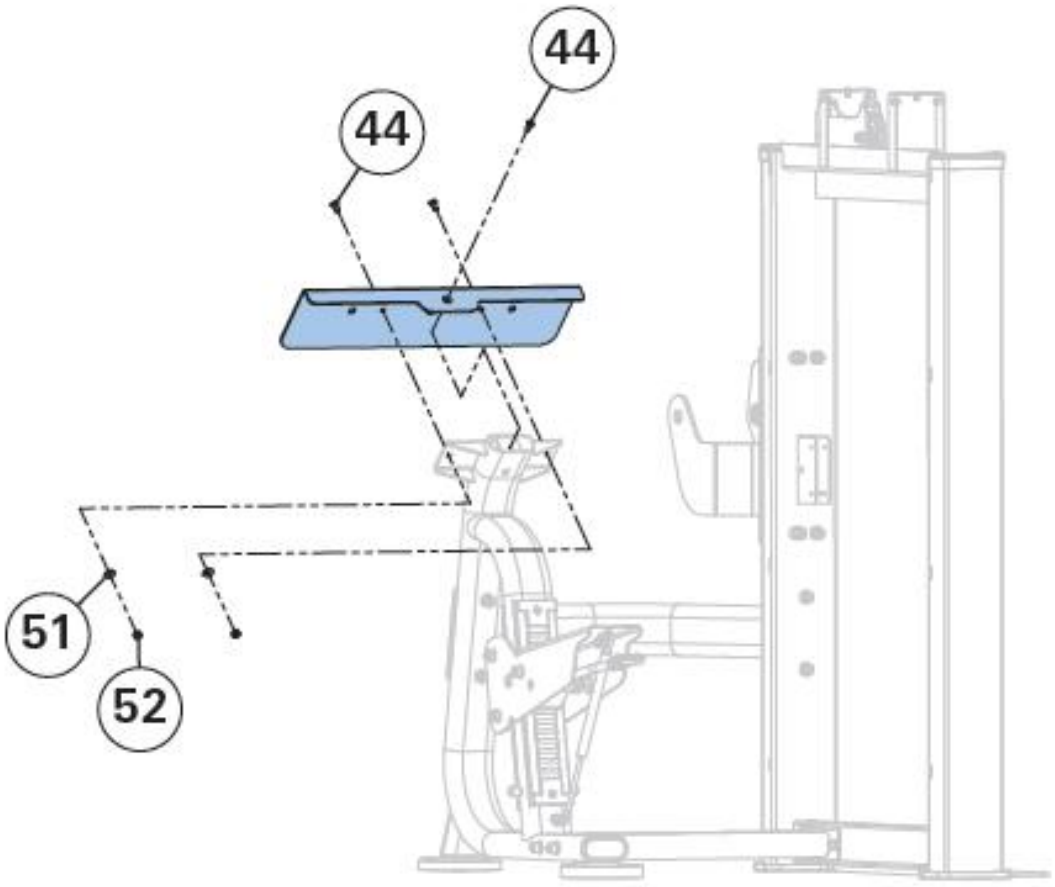
(44) M8X20 (51) M8 (52) M8

×3 ×2 ×2

Fully Tighten



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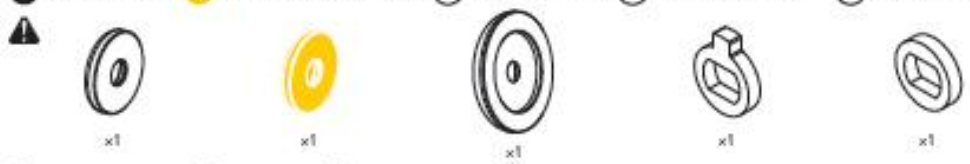
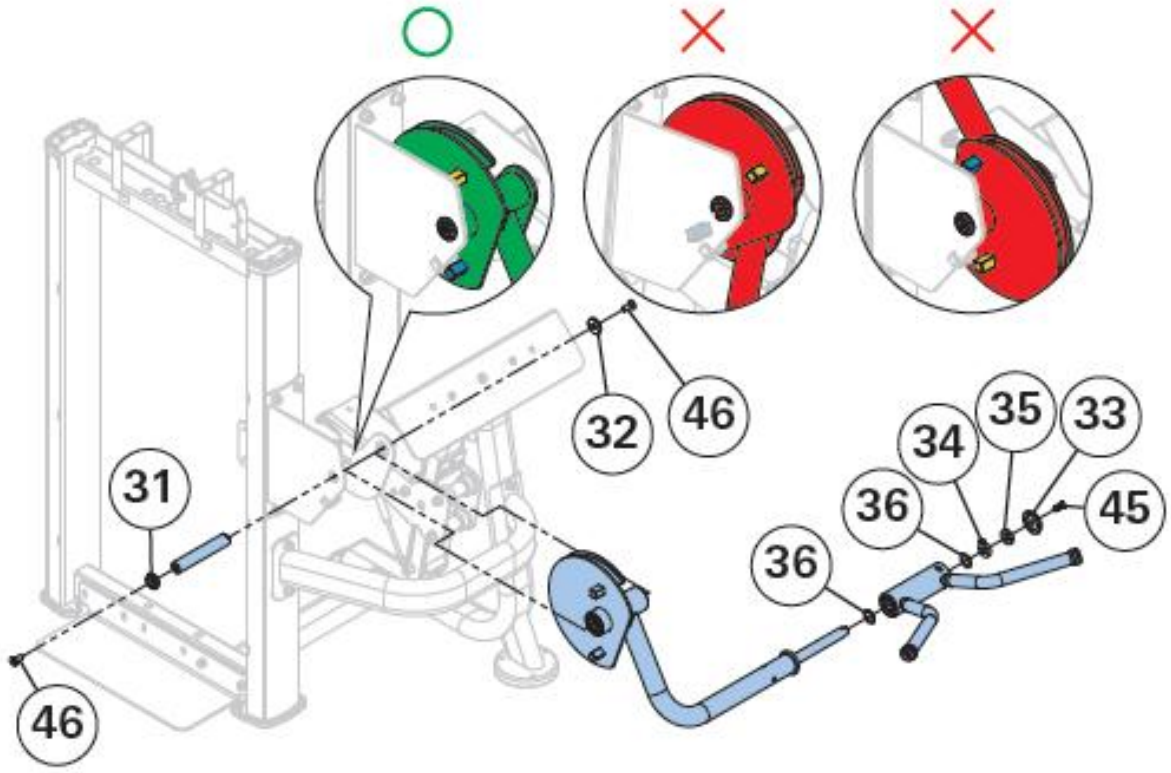
31 Ø42X12.5X8.4 32 Ø42X12.5X8.4 (yellow) 33 Ø60X10.5X10 34 Ø38X25.6XR27X8 35 Ø38X25.6X8



36 Ø38X26X0.5 45 M10X30 46 M12X30

Fully Tighten



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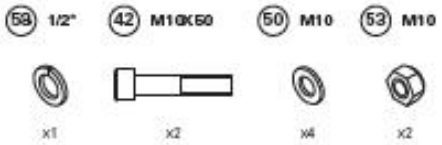
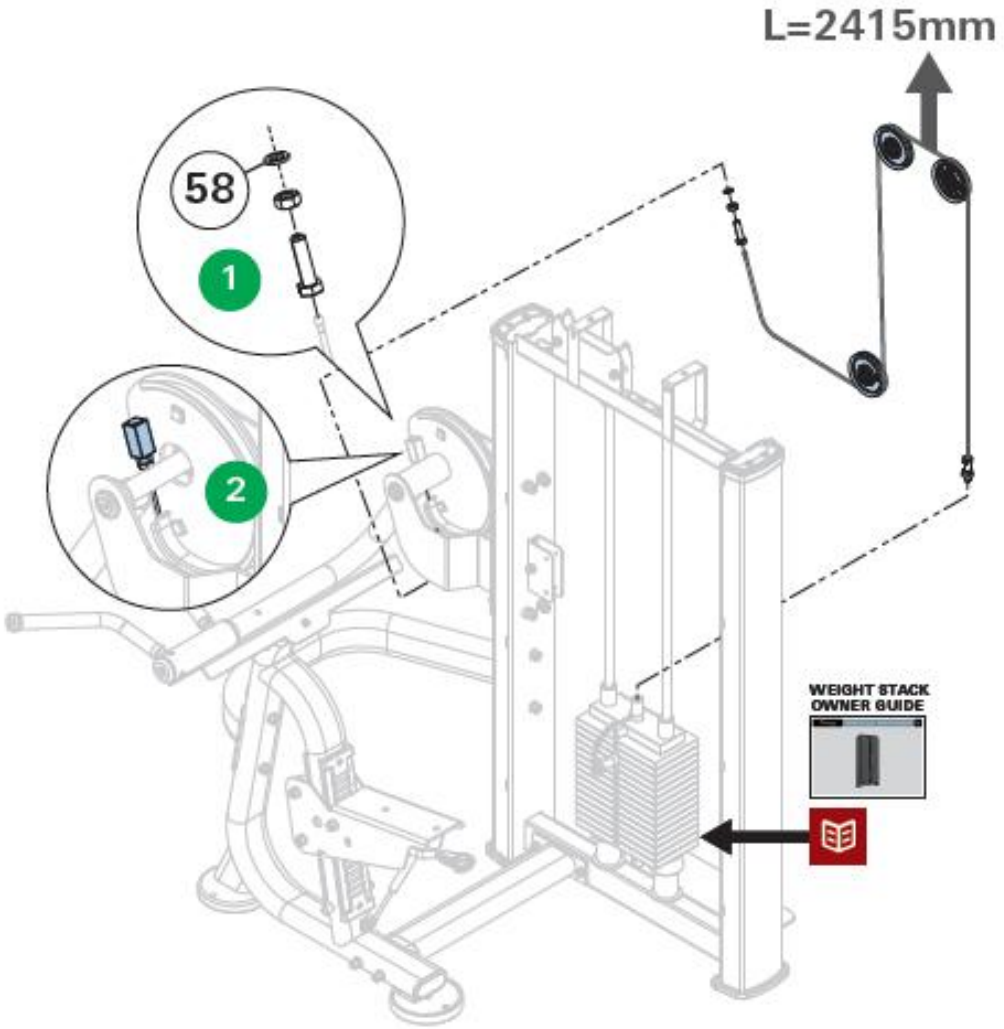
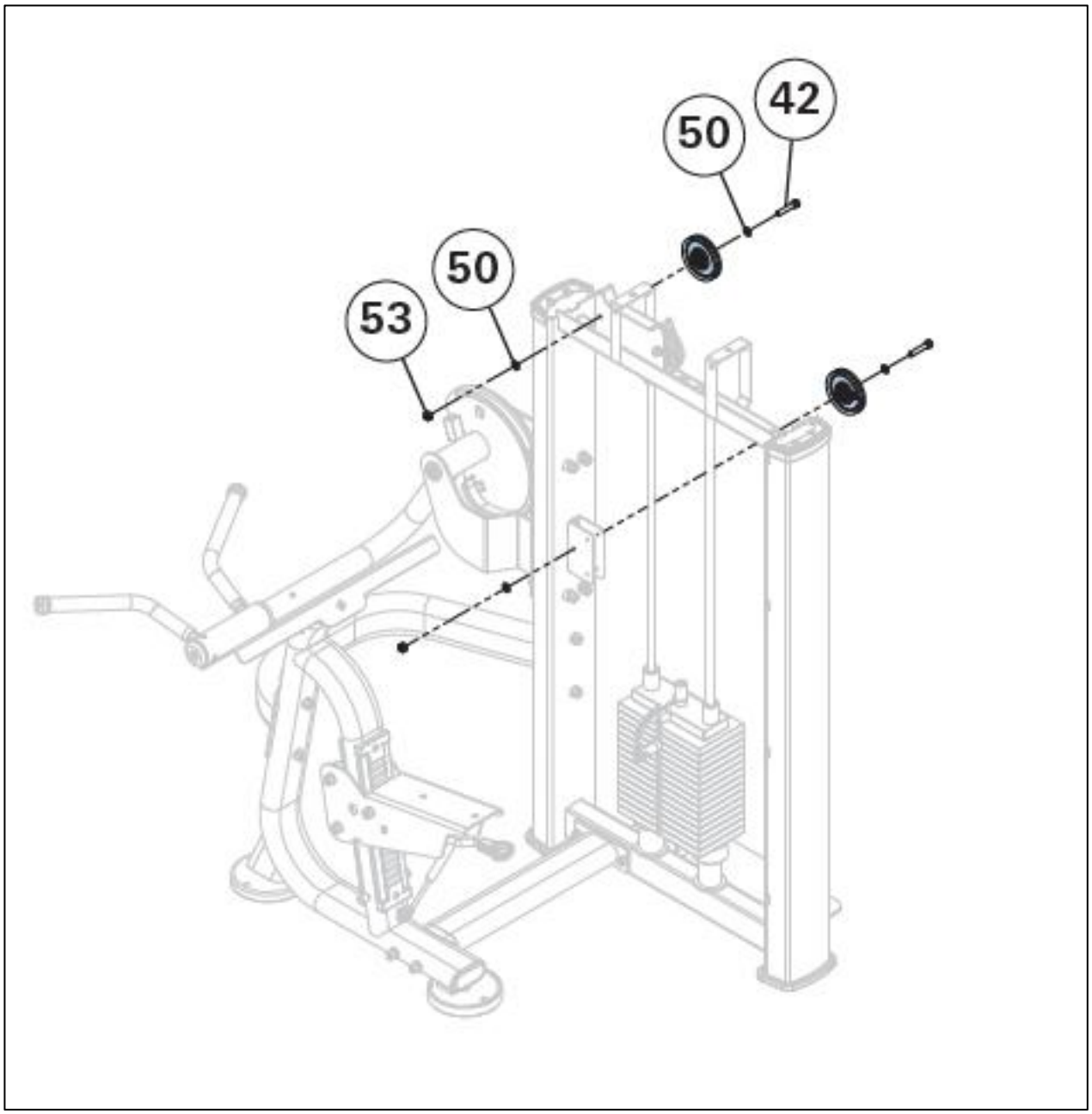


Fully Tighten

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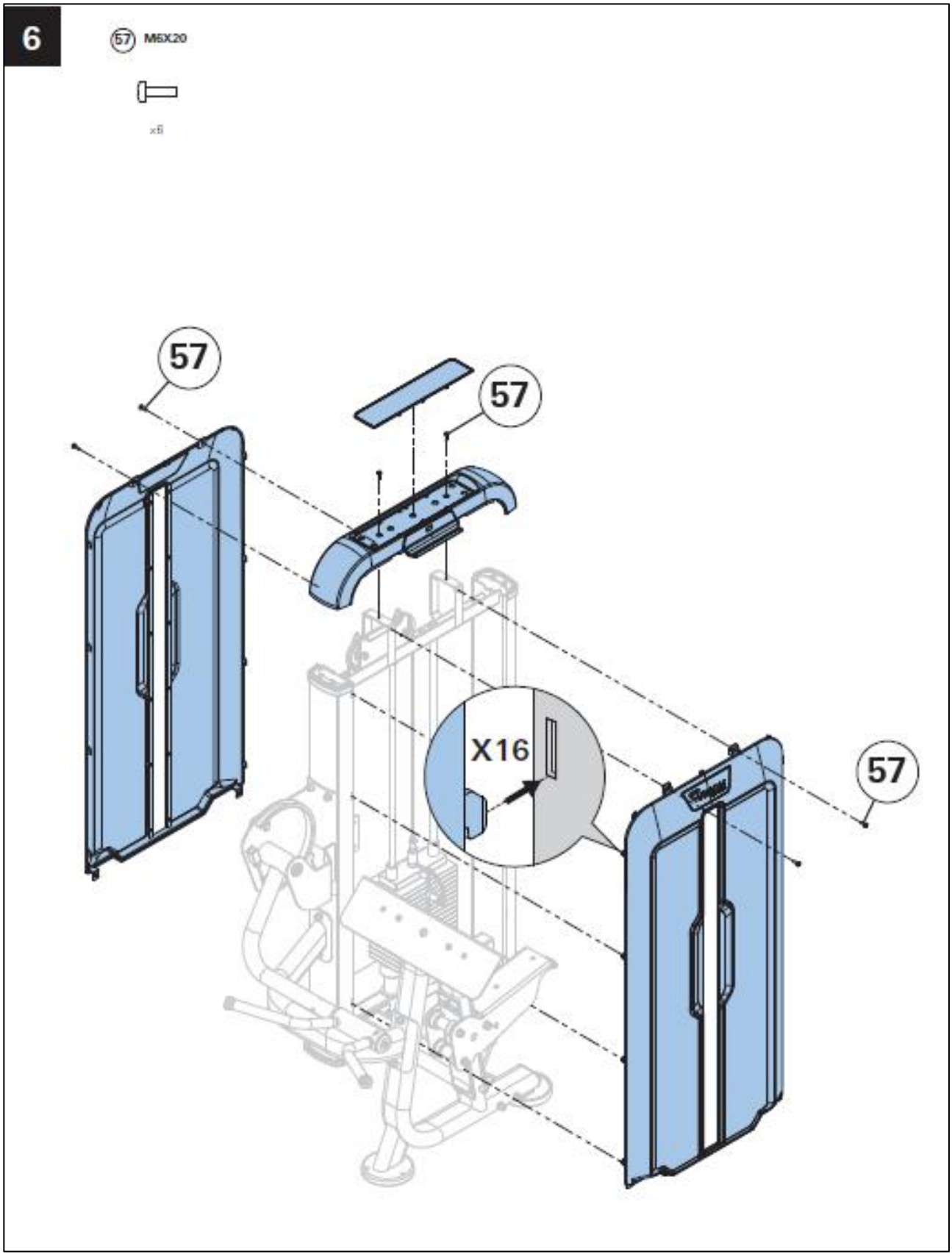
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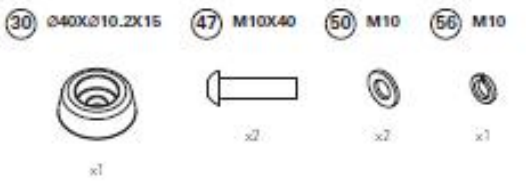
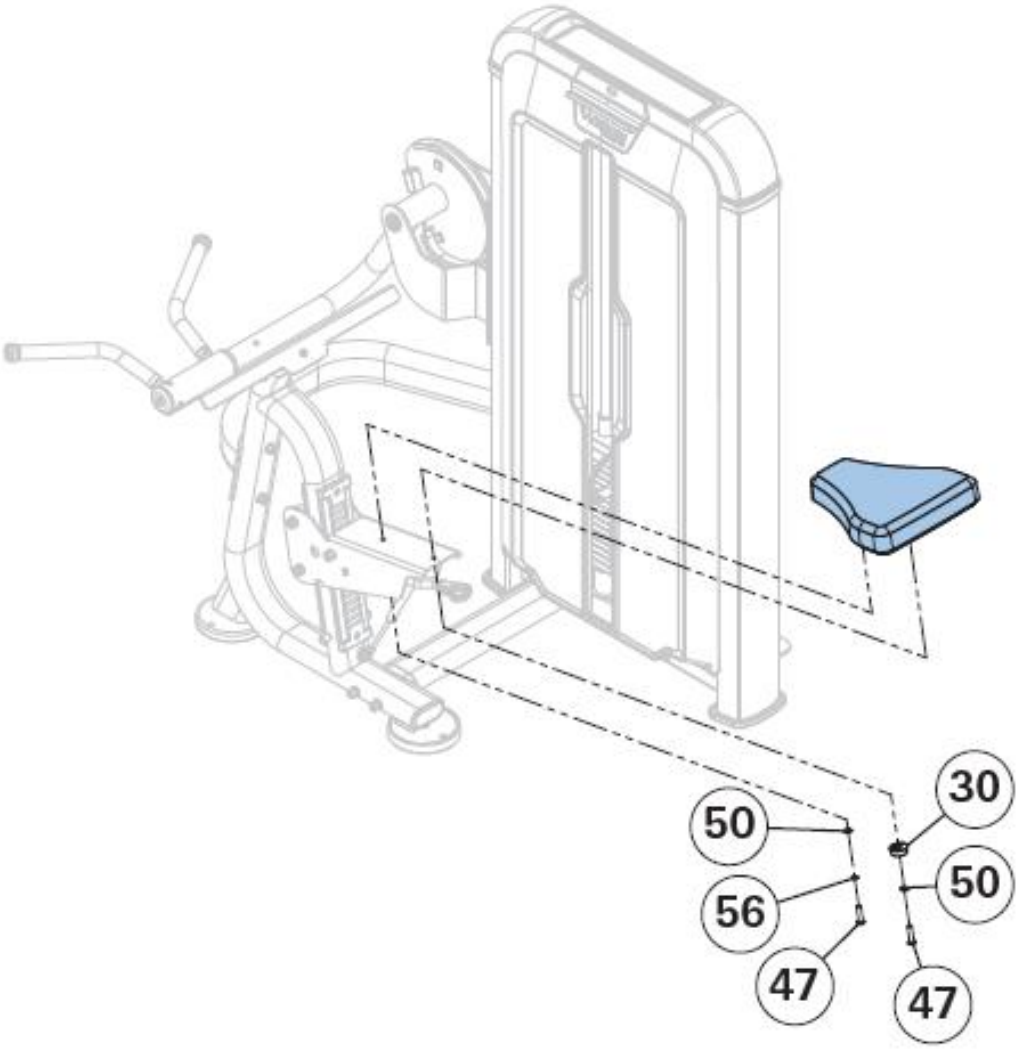
57 M6X20
x6
57
57
X16
57

7

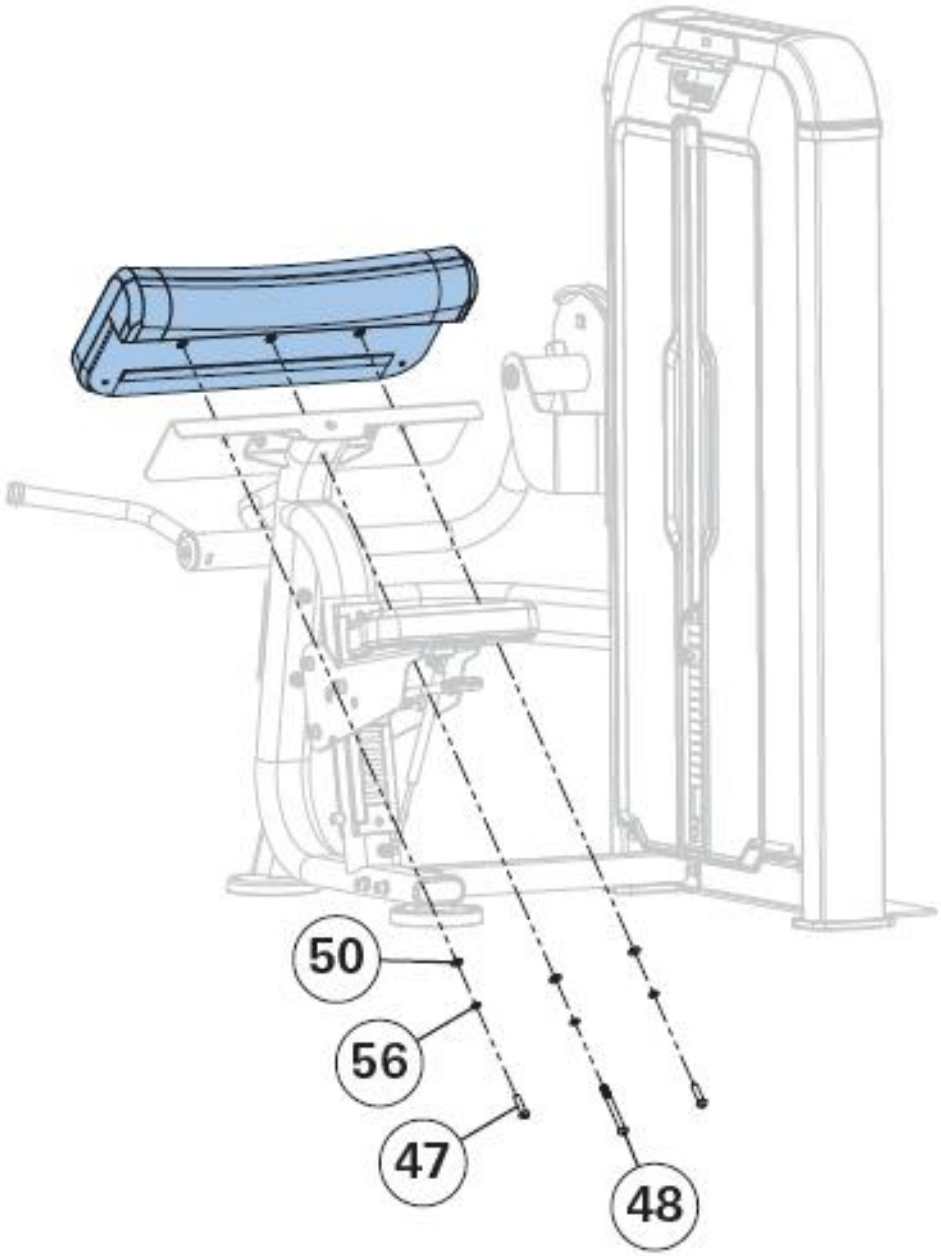


Fully Tighten



8

Fully Tighten



ASSEMBLY COMPLETE