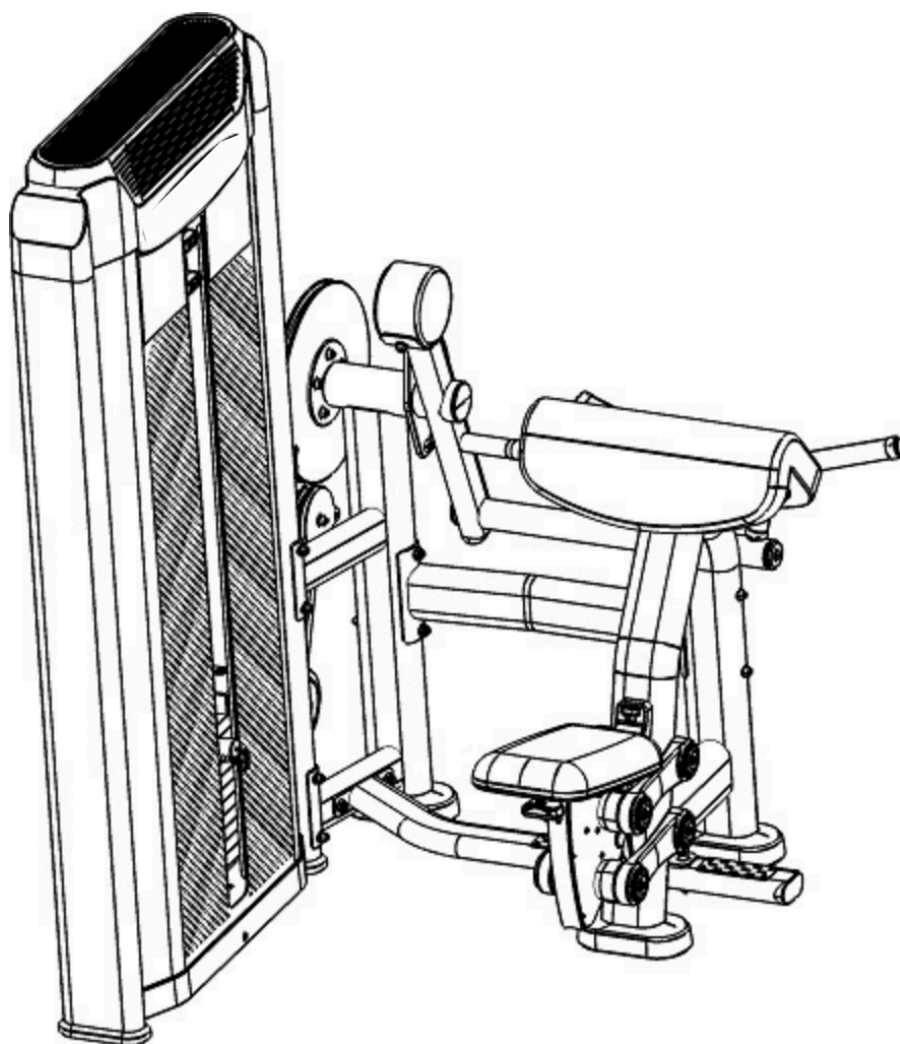


FRACTAL SERIES

Bicep/Tricep

Assembly & Owner Guide



BUILT TO PERFORM.

Read before assembly. Keep this guide for future reference.

01 / PREPARE

Before you begin

Set up your space

Assemble indoors on a level, stable surface with clear access around the equipment. Protect the floor and allow enough room to lay out the frame and hardware.

Check every part

Unpack and compare the components with the illustrated lists. Keep hardware grouped by stage. Reference numbers identify parts in the drawings; they may restart at each stage. Quantities are for the corresponding source list and should not be added across stages.

Prepare tools and help

Have metric hex keys and suitable metric wrenches or sockets ready for the listed fasteners. Use sufficient help to support heavy frames and moving assemblies. Keep hands clear of pinch points and never work beneath an unsupported load.

Follow the assembly drawings

Work through the stages in order. Match each numbered callout with its parts list. Confirm orientation before fitting fasteners. A part described as an assembly is supplied as a component; the wording does not instruct you to weld it.

Check connections before use

Use the specified hardware at each joint. Confirm that fasteners are secure and moving parts operate freely. If a part, dimension or connection is unclear, stop and contact Build A Gym before continuing.

ASSEMBLY SUPPORT

Build A Gym • (512) 591-8553 • buildagym.com

02 / SAFETY

Use and care safely

- Use the equipment indoors in a dry, supervised area. Keep the surrounding floor level and unobstructed.
- Children under 12 must not use this equipment. Provide appropriate supervision and assistance for other users who need it.
- Before each use, inspect moving components, fasteners, pins and attachments. Have loose or damaged parts corrected before use.
- Wear suitable exercise clothing and athletic shoes. Warm up before exercise and use slow, controlled movements.
- Increase resistance gradually. Stop exercising if you feel pain, discomfort or anything unusual, and consult a doctor.
- Consult your doctor before starting an exercise program.
- Keep hands, clothing and other objects clear of moving parts. Make sure adjustment pins and any safety stops are fully engaged.
- Clearly mark the equipment “Out of Use” during servicing or repair. Keep this guide available for future reference.

Your assembly sequence

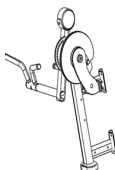
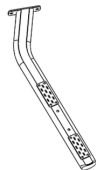
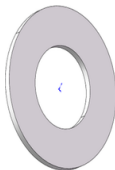
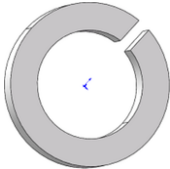
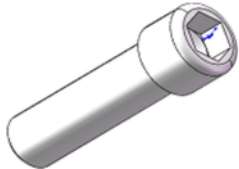
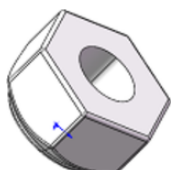
Stage 1 → Stage 2 → Stage 3 → Stage 4 → Stage 5 → Stage 6 → Final inspection

Use the PDF bookmarks to jump directly to a stage.

STAGE 1 / PARTS

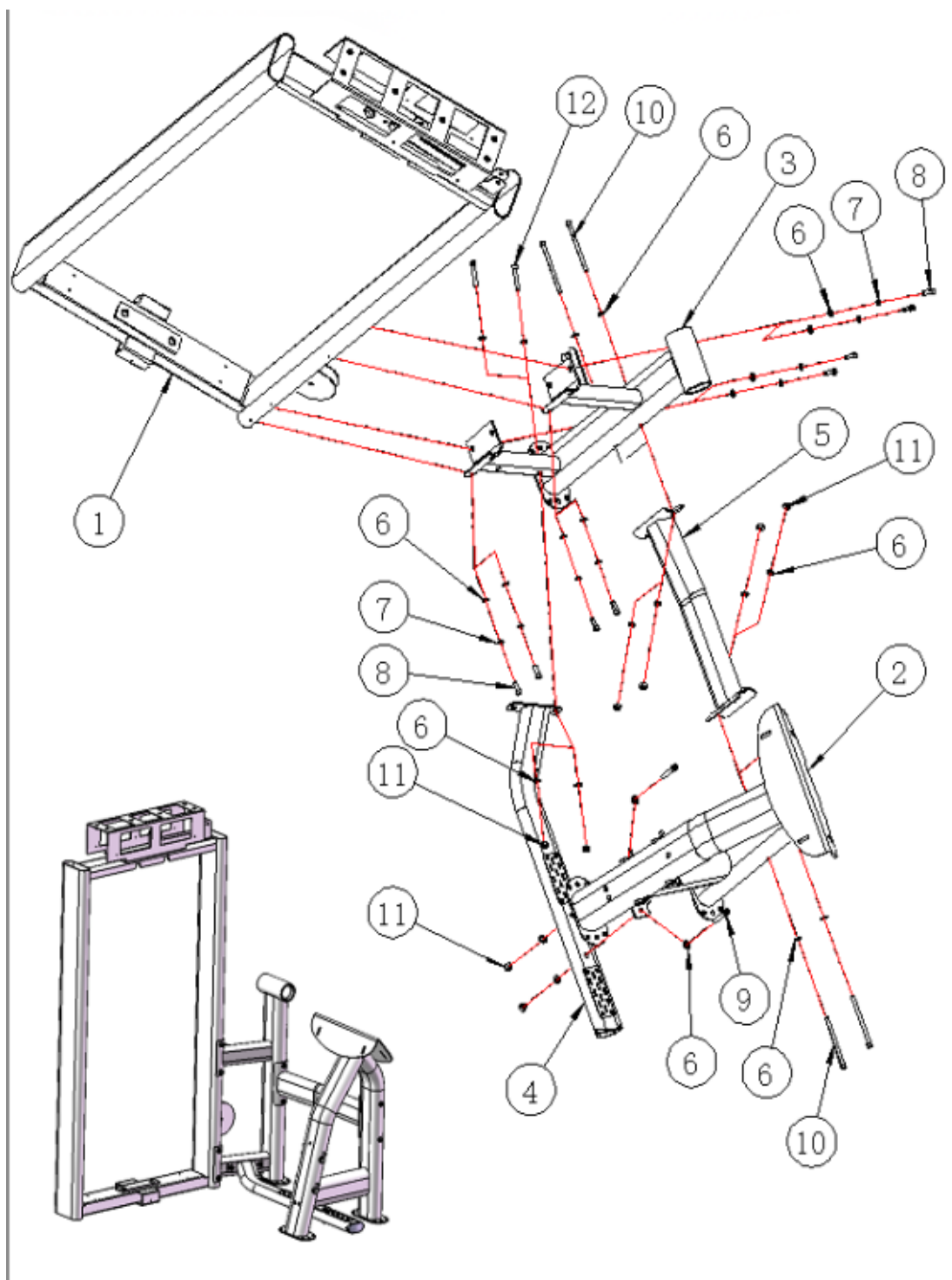
Identify your components

Match each reference and quantity to the drawing for this stage.

REF 1 QTY 1  <p>Small door</p>	REF 2 QTY 1  <p>Main frame</p>	REF 3 QTY 1  <p>Stand</p>
REF 4 QTY 1  <p>Lower support</p>	REF 5 QTY 1  <p>Bend and brace assembly</p>	REF 6 QTY 24  <p>Washers Ø10.3xØ20 × 1.2</p>
REF 7 QTY 8  <p>Spring washer Ø10</p>	REF 8 QTY 8  <p>Socket-head screw M10 × 25</p>	REF 9 QTY 2  <p>Socket-head screw M10 × 65</p>
REF 10 QTY 4  <p>Hexagonal cylindrical head stud M10 × 135</p>	REF 11 QTY 8  <p>Locknut M10</p>	REF 12 QTY 2  <p>Socket-head screw M10 × 60</p>

STAGE 1 / DRAWING 1 OF 1

Assembly stage 1



Match the numbered callouts to the Stage 1 parts list. Position the components as shown and use the listed hardware at each connection.

Stage 1: Connect the Main Frames

Use Stage 1 part numbers and match each bolt length to the drawing.

1. Support the tower and main frame

Position tower frame 1 and main frame 2 on a level floor in the orientation shown. Keep both supported while fitting stand 3, lower support 4 and bent brace 5.

2. Fit the tower connections

Attach stand 3 and lower support 4 to the tower using M10 × 25 screws 8, spring washers 7 and washers 6 at the illustrated plates. Start all connections before tightening.

3. Join and align the main frame

Connect main frame 2 and brace 5 at the depicted upper and lower joints. Use screws 9, 10 and 12 only at their illustrated positions, with washers 6 and locknuts 11. Align the full frame and secure the structural joints before removing supports.

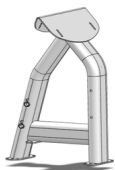
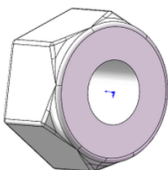
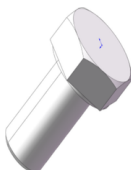
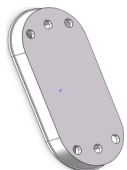
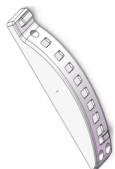
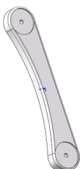
Check before continuing

The tower, seat frame and connecting braces are stable and secure.

STAGE 2 / PARTS

Identify your components

Match each reference and quantity to the drawing for this stage.

REF 1 QTY 1  <p>Main frame assembly</p>	REF 2 QTY 4  <p>Locknut M10</p>	REF 3 QTY 4  <p>Hex head bolt M10 × 25</p>
REF — QTY 4  <p>Washers Ø10.3xØ20 × 1.2</p>	REF 5 QTY 2  <p>Footing plastic parts</p>	REF 6 QTY 2  <p>Ground foot cover</p>
REF 7 QTY 1  <p>Gear block</p>	REF 8 QTY 3  <p>Socket-head screw M10 × 25</p>	REF 9 QTY 4  <p>Long crank</p>
REF 10 QTY 4  <p>Long swivel shaft</p>	REF 11 QTY 8  <p>Sintered bushing</p>	REF 12 QTY 4  <p>Coil spring</p>

“—” means the source does not specify this value. Confirm it with Build A Gym before assembly.

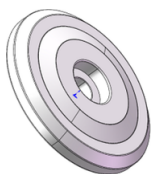
STAGE 2 / PARTS

Identify your components

Match each reference and quantity to the drawing for this stage.

REF 13

QTY 8



Aluminum cover

REF 14

QTY 8



Socket-head screw M8 × 25

REF 15

QTY 8

Hexagonal cylindrical head stud
M8 × 25

REF 16

QTY 16



Spring washer Ø8

REF 17

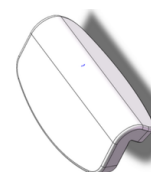
QTY 8



Washers Ø8.3xØ16 × 1

REF 18

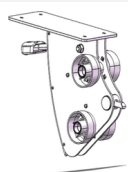
QTY 1



Elbow pads

REF 19

QTY 1



Seat

REF 20

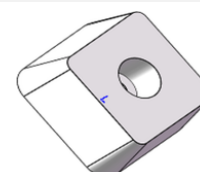
QTY 1



Cushion

REF 21

QTY 1



Cushioning

REF 22

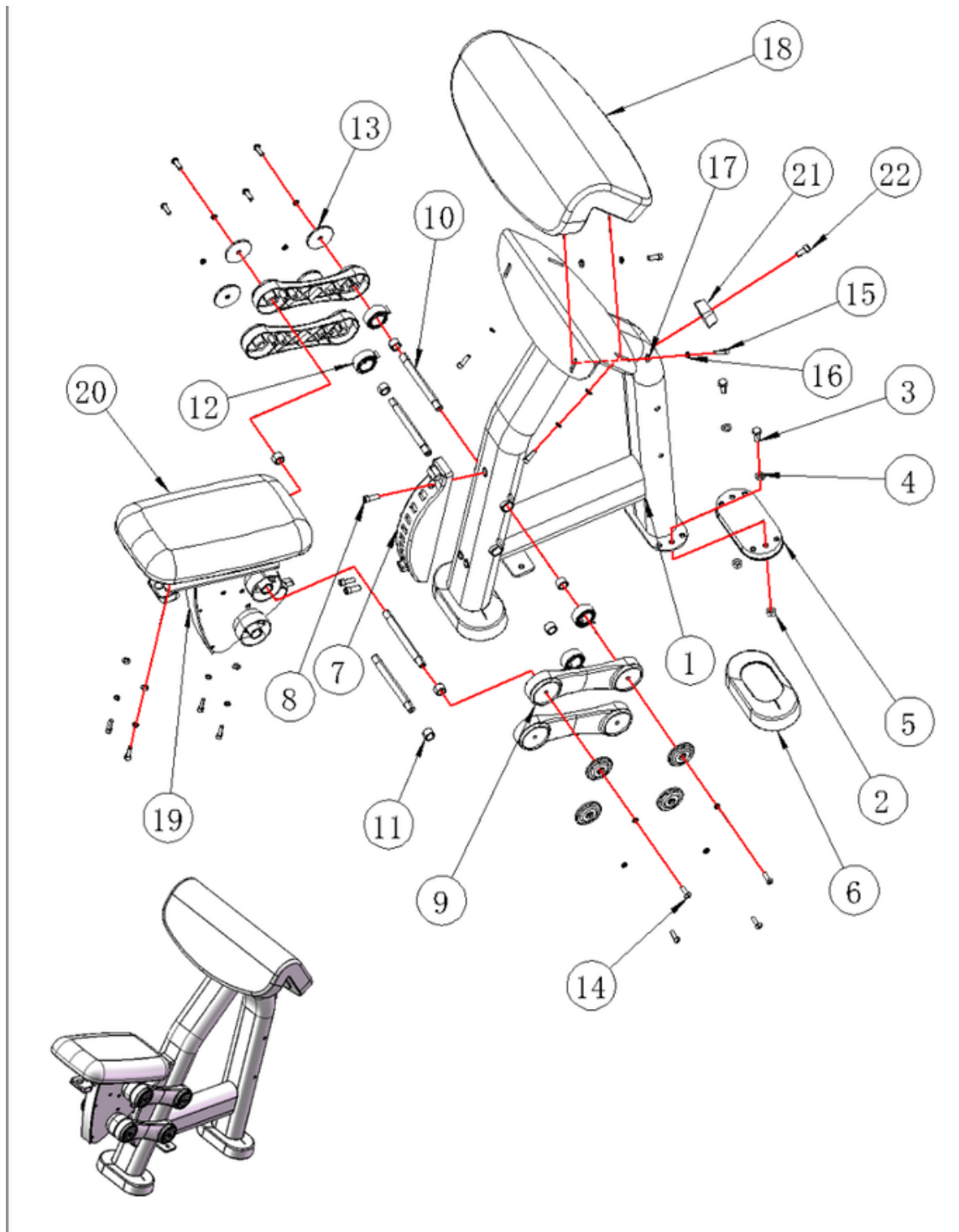
QTY 1



Socket-head screw M10 × 20

STAGE 2 / DRAWING 1 OF 1

Assembly stage 2



Match the numbered callouts to the Stage 2 parts list. Position the components as shown and use the listed hardware at each connection.

Stage 2: Assemble the Seat

Use Stage 2 references. Keep the seat supported until every link end is retained.

4. Fit the foot and seat stop

Fit ground foot 5 and cover 6 to main frame 1 with M10 × 25 screws 3, washers 4 and locknuts 2. The washer is unnumbered in the list; identify it by the drawing. Fit gear block 7 with screws 8 at the depicted seat stop.

5. Assemble the four seat links

Support seat frame 19. Fit shafts 10, bushings 11 and long cranks 9 in the illustrated arrangement. Retain the link ends with covers 13 and M8 × 25 screws 14. Fit spring components 12 as shown; preserve the supplied setting and obtain the setting if these arrive loose.

6. Fit the seat and elbow pad

Secure cushion 20 to seat frame 19 and elbow pad 18 to its upper support using the depicted M8 × 25 screws 15, spring washers 16 and washers 17. Check the supplied hardware against each mounting location before tightening.

7. Fit the buffer and check adjustment

Install buffer 21 with M10 × 20 screw 22 where shown. Verify all four links are retained, the seat moves without binding, its adjustment locks securely and the elbow pad stays fixed.

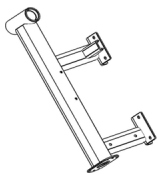
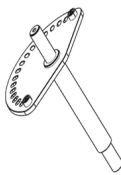
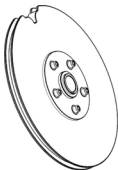
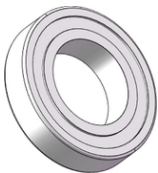
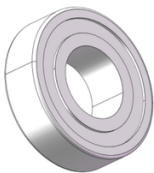
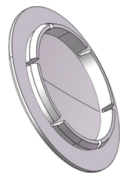
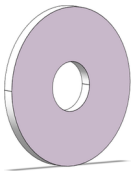
Check before continuing

Seat links, springs, stop and both pads are secure.

STAGE 3 / PARTS

Identify your components

Match each reference and quantity to the drawing for this stage.

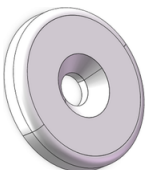
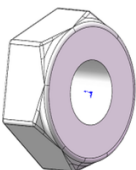
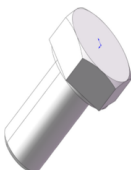
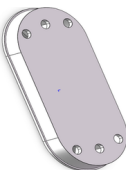
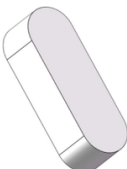
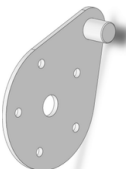
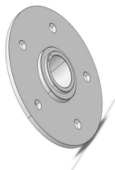
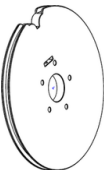
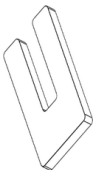
REF 1 QTY 1  <p>Main frame assembly</p>	REF 2 QTY 1  <p>Boom</p>	REF 3 QTY 1  <p>Conditioning</p>
REF — QTY 1  <p>Rope disc</p>	REF 5 QTY 1  <p>Socket-head screw M10 × 25</p>	REF 6 QTY 1  <p>Spring washer Ø10</p>
REF 7 QTY 2  <p>Deep groove ball bearings Ø62xØ35 × 14</p>	REF 8 QTY 2  <p>Deep groove ball bearings Ø52xØ25 × 15</p>	REF 9 QTY 1  <p>70 end caps</p>
REF 10 QTY 2  <p>Large washer</p>	REF 11 QTY 1  <p>Countersunk socket screw M10 × 20</p>	REF 12 QTY 2  <p>Sintered bushing</p>

“—” means the source does not specify this value. Confirm it with Build A Gym before assembly.

STAGE 3 / PARTS

Identify your components

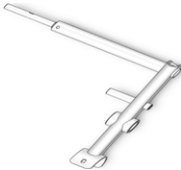
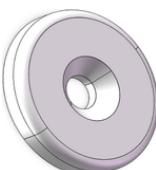
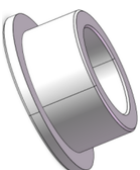
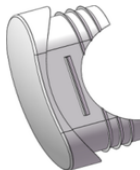
Match each reference and quantity to the drawing for this stage.

REF 13 QTY 1  Ø50 aluminum end cap	REF 14 QTY 1  Commutation frame	REF 15 QTY 2  Locknut M10
REF 16 QTY 2  Hex head bolt M10 × 25	REF 17 QTY 2  Washers Ø10.3xØ20 × 1.2	REF 18 QTY 1  Footing plastic parts
REF 19 QTY 1  Ground foot cover	REF 20 QTY 1  Flat key	REF 1 QTY 1  Rope disc limit assembly
REF 2 QTY 1  Rope disc limit assembly	REF 3 QTY 1  Nylon enamel disc	REF 4 QTY 1  Rope bean baffle

STAGE 3 / PARTS

Identify your components

Match each reference and quantity to the drawing for this stage.

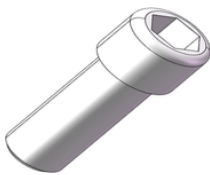
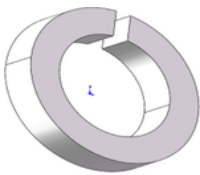
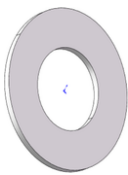
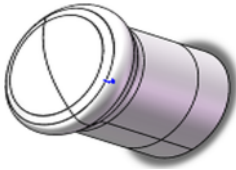
REF 5 QTY 5  Locknut M10	REF 6 QTY 5  Socket-head screws M10 × 45	REF 7 QTY 10  Washers Ø10.3xØ20 × 1.2
REF 8 QTY 1  Cushioning sleeves	REF 1 QTY 1  Boom assembly	REF 2 QTY 1  Handle assembly
REF 3 QTY 1  Ø50 aluminum end cap	REF — QTY 2  Sintered bushing	REF 5 QTY 1  Countersunk socket screw M10 × 20
REF 6 QTY 2  Socket-head screw M10 × 20	REF 7 QTY 1  40-80 Flat elliptical plug (arc)	REF 8 QTY 1  50 round tube plug

“—” means the source does not specify this value. Confirm it with Build A Gym before assembly.

STAGE 3 / PARTS

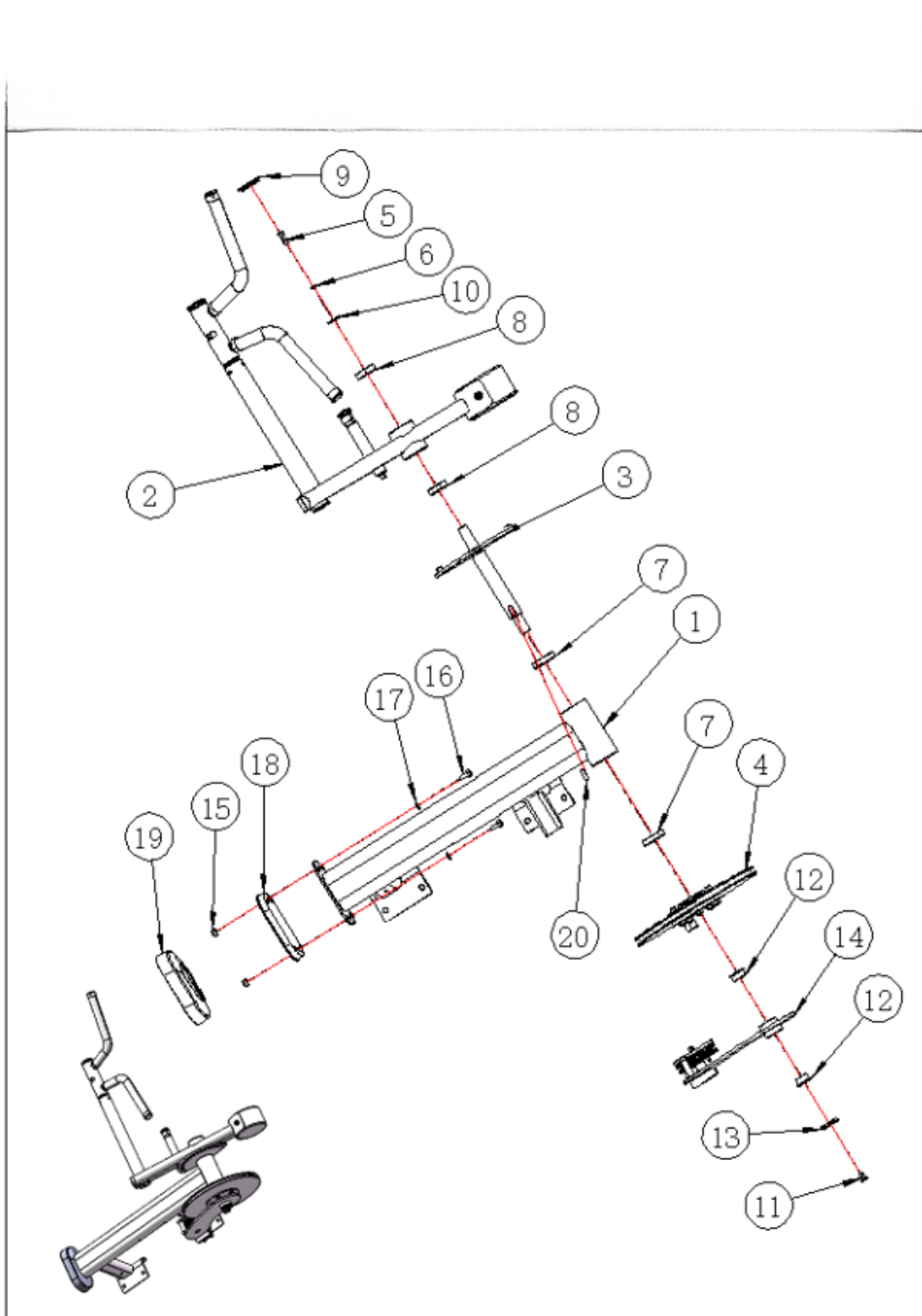
Identify your components

Match each reference and quantity to the drawing for this stage.

<div>REF 9</div> <div>QTY 2</div> <div></div> <div>Socket-head screw M10 × 25</div>	<div>REF 10</div> <div>QTY 2</div> <div></div> <div>Spring washer Ø10</div>	<div>REF 11</div> <div>QTY 2</div> <div></div> <div>Washers Ø10.3xØ20 × 1.2</div>
<div>REF 12</div> <div>QTY 1</div> <div></div> <div>Circular counterweight</div>	<div>REF 13</div> <div>QTY 1</div> <div></div> <div>Latch cap</div>	<div>REF 14</div> <div>QTY 2</div> <div></div> <div>Pull pin bar</div>
<div>REF 15</div> <div>QTY 2</div> <div></div> <div>Spring</div>	<div>REF 16</div> <div>QTY 2</div> <div>See assembly drawing</div> <div>Component — see illustration</div>	

STAGE 3 / DRAWING 1 OF 3

Assembly stage 3



Match the numbered callouts to the Stage 3 parts list. Position the components as shown and use the listed hardware at each connection.

Stage 3A: Fit the Arm Pivot

Use Stage 3 drawing 1 for steps 9–11. Complete the following cam and handle details before cable tensioning.

8. Separate the three Stage 3 part sets

Stage 3 restarts its reference numbers for each of its three drawings. Use the first parts set for drawing 1, the cam parts set for drawing 2 and the handle parts set for drawing 3. Keep their hardware separate.

9. Fit the pivot bearings and shaft

For drawing 1, seat bearings 7 in main frame 1 and bearings 8 in boom 2 in the illustrated order. Support adjustment assembly 3 as its shaft passes through the bearings. Retain the boom side with large washer 10, spring washer 6, screw 5 and end cap 9.

10. Fit the cam-side components

On the opposite end fit key 20, cable disc 4, bushings 12 and reversing frame 14 in the order shown. Fit end cap 13 and countersunk screw 11. Confirm positive shaft retention and free movement before releasing the supported arm.

11. Fit the frame foot

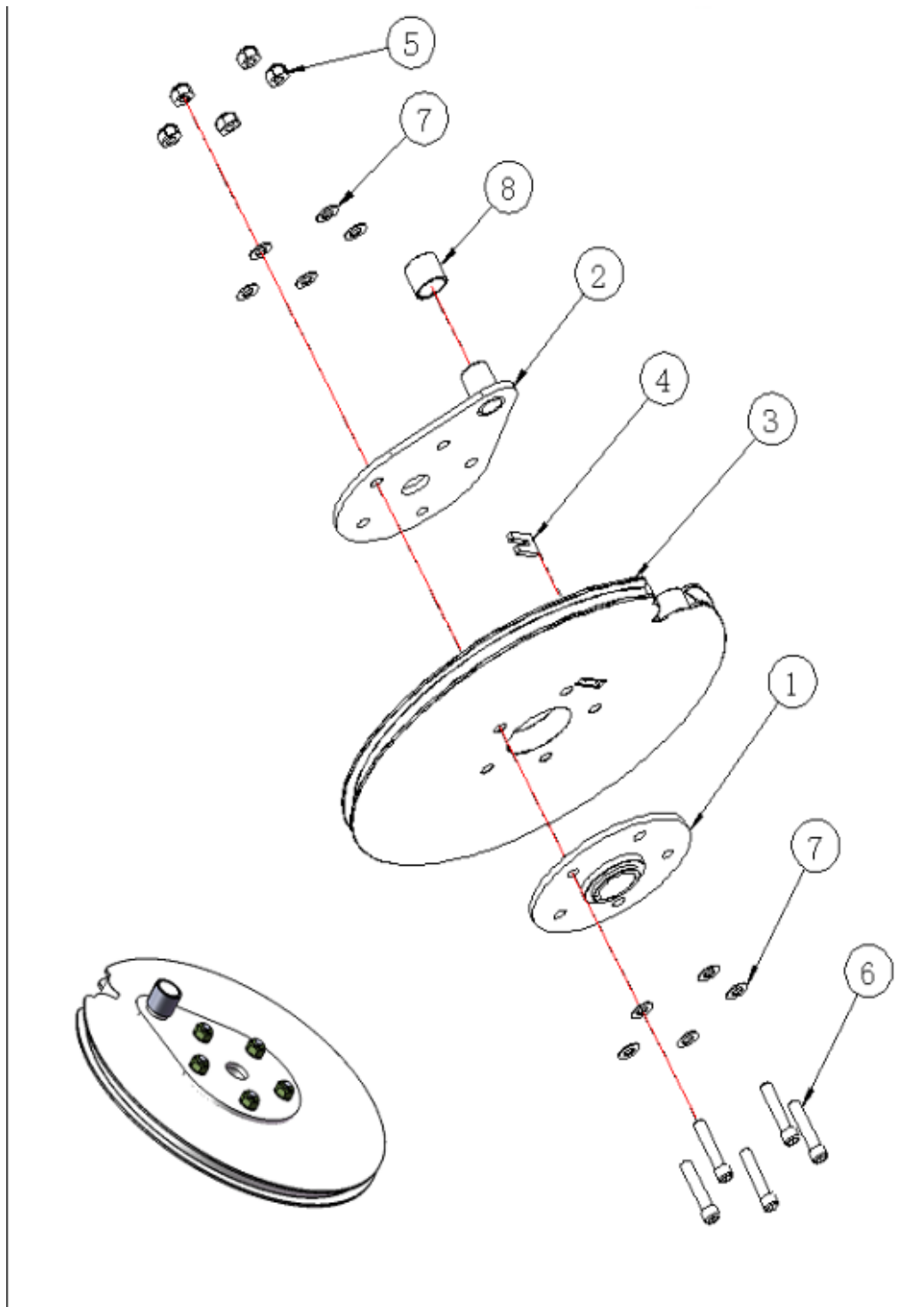
Fit foot 18 and cover 19 using bolts 16, washers 17 and locknuts 15. Verify the assembled arm and main frame clear one another throughout the permitted movement.

Check before continuing

Pivot bearings, retaining hardware and foot are secure.

STAGE 3 / DRAWING 2 OF 3

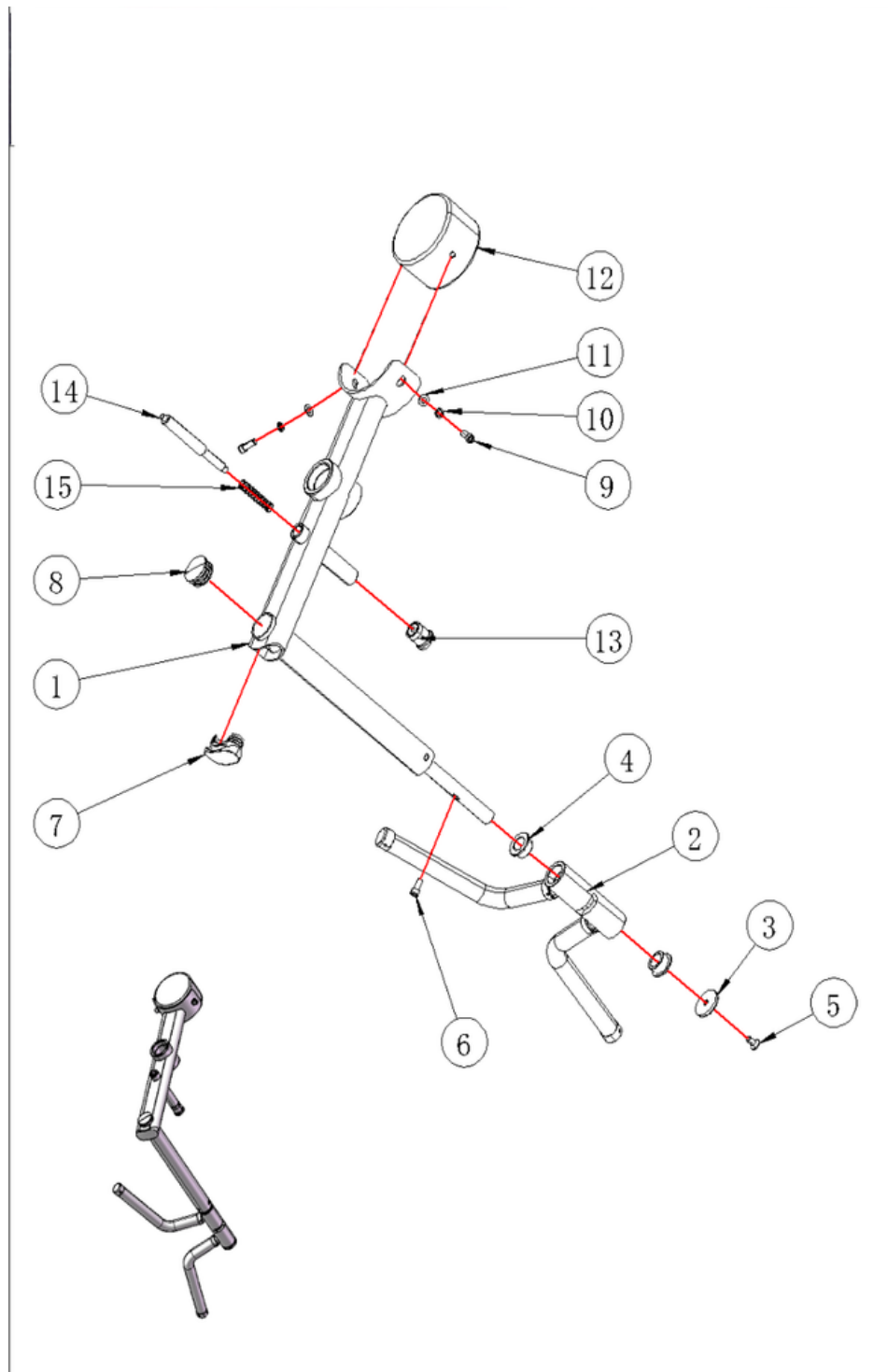
Assembly stage 3



Match the numbered callouts to the Stage 3 parts list. Position the components as shown and use the listed hardware at each connection.

STAGE 3 / DRAWING 3 OF 3

Assembly stage 3



Match the numbered callouts to the Stage 3 parts list. Position the components as shown and use the listed hardware at each connection.

Stage 3B: Complete Cam and Handle

Steps 12 and 13–15 use different part-number sets. Do not interchange their components.

12. Assemble the cable cam

Using drawing 2 references, align disc assemblies 1 and 2 around nylon disc 3. Fit cable baffle 4 and sleeve 8 as shown. Install the five M10 × 45 screws 6 with washers 7 and locknuts 5. Preserve the illustrated stop and cable-groove orientation.

13. Fit the handle pivot

Switch to drawing 3 references. Fit bushings 4 and handle 2 to boom 1 in the shown order. Retain with end cap 3 and countersunk M10 × 20 screw 5; fit screw 6 at the depicted handle location. Verify the handle is retained and pivots freely.

14. Fit the counterweight and selector

Support circular counterweight 12 while fitting screws 9, spring washers 10 and washers 11. Install pull pin 14, spring 15 and cap 13 in the illustrated order. Confirm the pin engages fully at every tested position.

15. Finish and inspect the arm

Fit plugs 7 and 8. Check all cam, handle and counterweight fasteners. The list includes item 16 without a clear placement in drawing 3; obtain its identification and location if supplied loose. Confirm both exercise positions lock correctly before routing the cable.

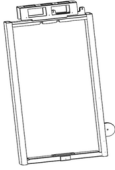
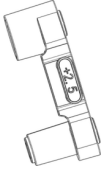
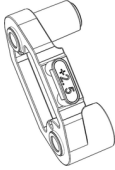
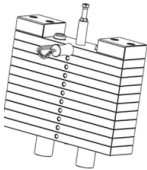
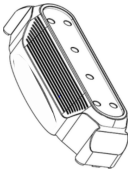
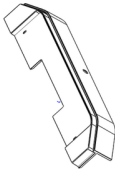
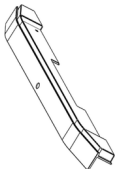
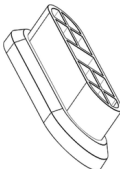
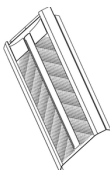
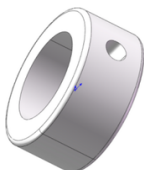
Check before continuing

Cam orientation, handle retention and exercise-position lock are confirmed.

STAGE 4 / PARTS

Identify your components

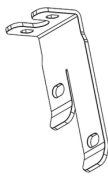
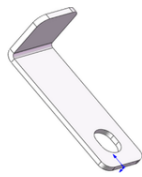
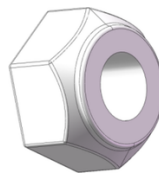
Match each reference and quantity to the drawing for this stage.

<div>REF 1</div> <div>QTY 1</div> <div></div> <div>Small frame assembly</div>	<div>REF 2</div> <div>QTY 1</div> <div></div> <div>Sub-counterweight</div>	<div>REF 3</div> <div>QTY 1</div> <div></div> <div>Sub-counterweight</div>
<div>REF 4</div> <div>QTY 1</div> <div></div> <div>Balance and recombination</div>	<div>REF 5</div> <div>QTY 1</div> <div></div> <div>Large upper cover</div>	<div>REF 6</div> <div>QTY 2</div> <div></div> <div>Front base</div>
<div>REF 7</div> <div>QTY 1</div> <div></div> <div>Rear base</div>	<div>REF 8</div> <div>QTY 2</div> <div></div> <div>Base</div>	<div>REF 9</div> <div>QTY 1</div> <div></div> <div>Top cover</div>
<div>REF 10</div> <div>QTY 1</div> <div></div> <div>Front guard</div>	<div>REF 11</div> <div>QTY 1</div> <div></div> <div>Rear guard</div>	<div>REF 12</div> <div>QTY 2</div> <div></div> <div>Guide rod retaining sleeve</div>

STAGE 4 / PARTS

Identify your components

Match each reference and quantity to the drawing for this stage.

REF 13 QTY 2  Counterweight guide bar	REF 14 QTY 1  Counterweight bracket on small door	REF 15 QTY 2  Anti-skipping rope guard
REF 16 QTY 3  Pulleys	REF 17 QTY 2  136 Semi-circular pulley shell	REF 18 QTY 12  Cross groove pan head self-tapping screw
REF 19 QTY 6  Washer Ø10.3xØ20 x 1.2	REF 20 QTY 8  Washers Ø8.3xØ16 x 1	REF 21 QTY 12  Washers Ø5.3xØ10 x 1
REF 22 QTY 12  Spring washer Ø5	REF 23 QTY 8  Spring washer Ø8	REF 24 QTY 3  Locknut M10

STAGE 4 / PARTS

Identify your components

Match each reference and quantity to the drawing for this stage.

REF 25

QTY 2



Hexagon pan head screws M6 × 25

REF 26

QTY 8



Socket-head screw M8 × 25

REF 27

QTY 2



Socket-head screw M10 × 50

REF 28

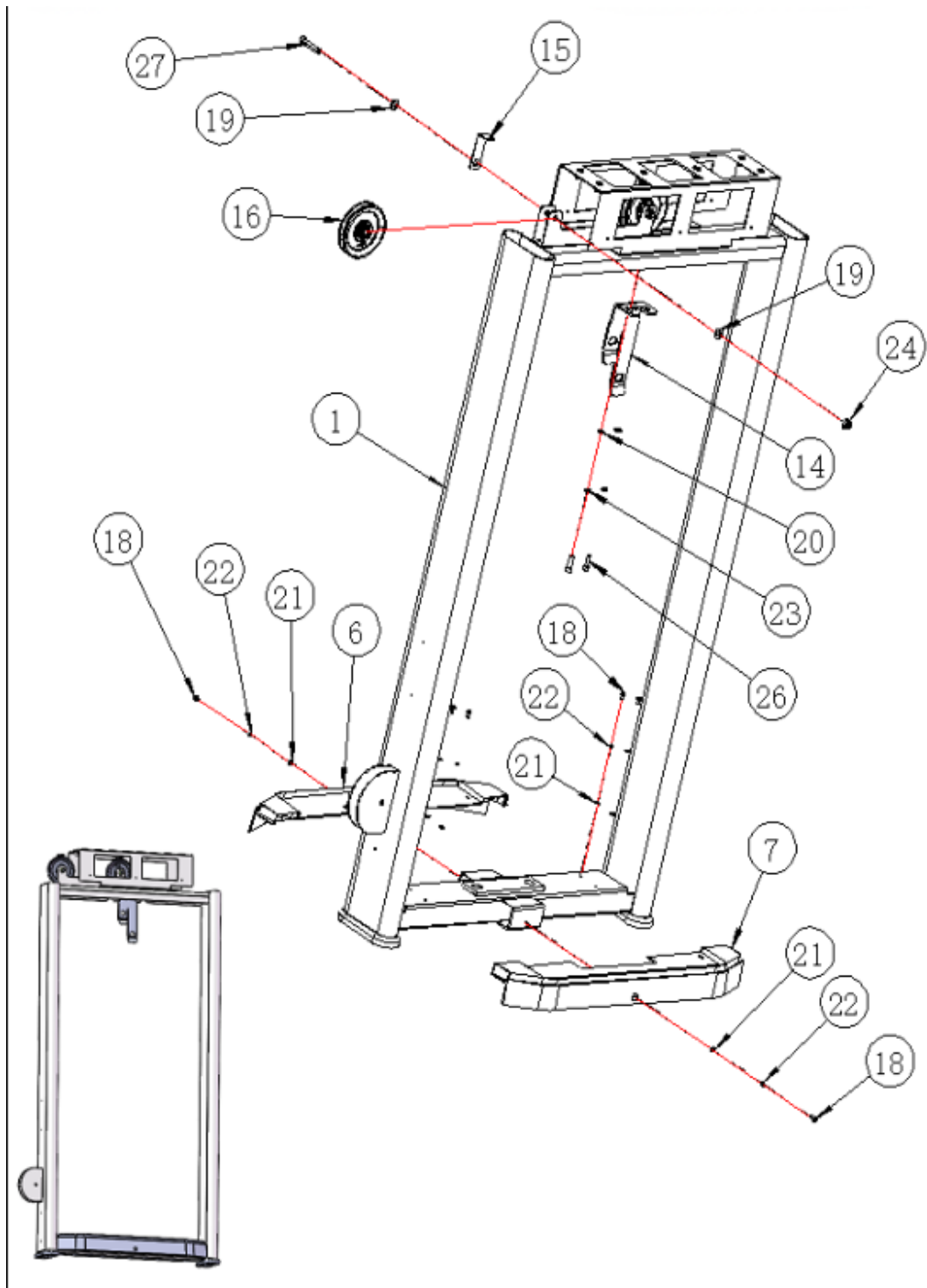
QTY 1



Socket-head screw M10 × 65

STAGE 4 / DRAWING 1 OF 3

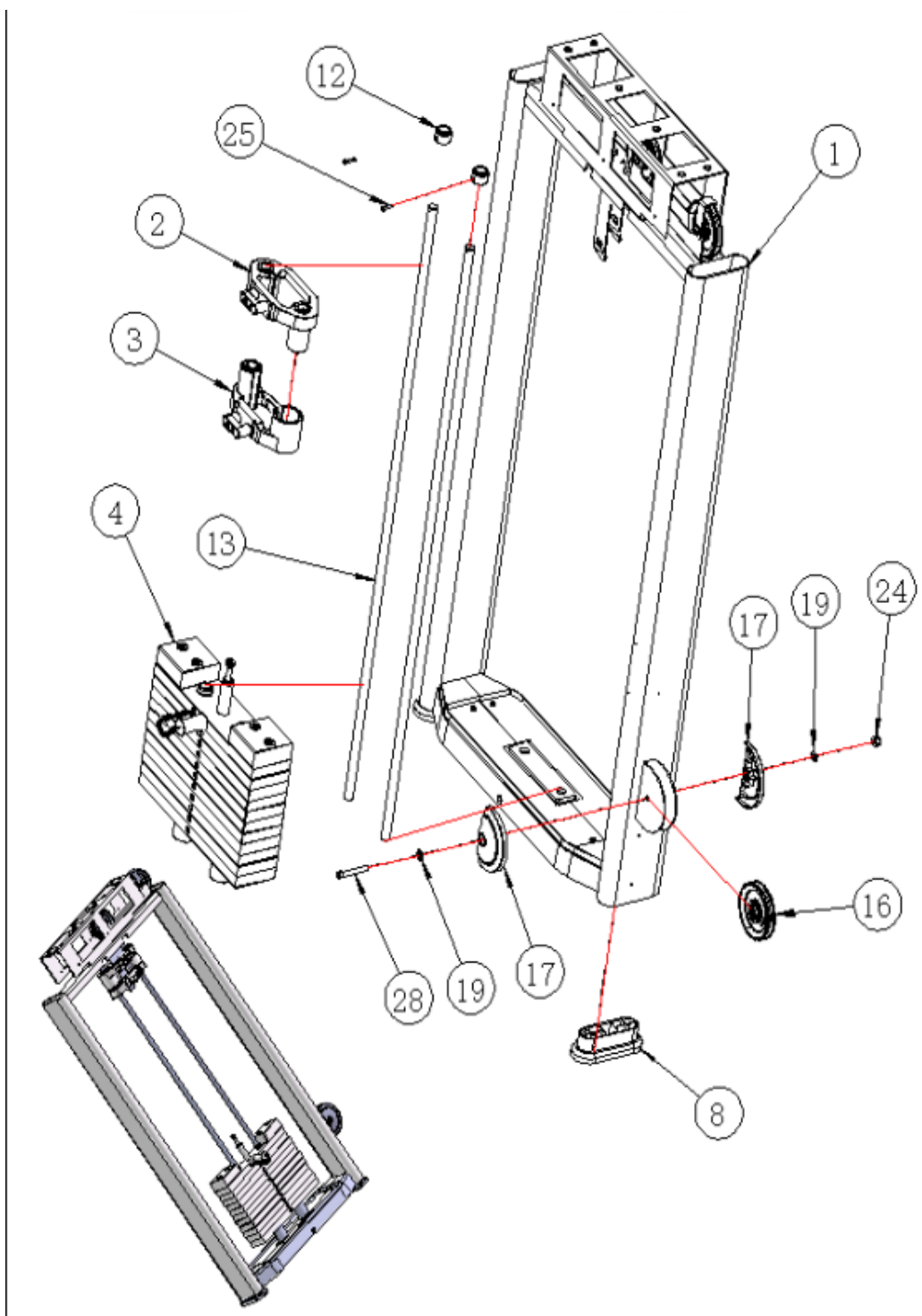
Assembly stage 4



Match the numbered callouts to the Stage 4 parts list. Position the components as shown and use the listed hardware at each connection.

STAGE 4 / DRAWING 2 OF 3

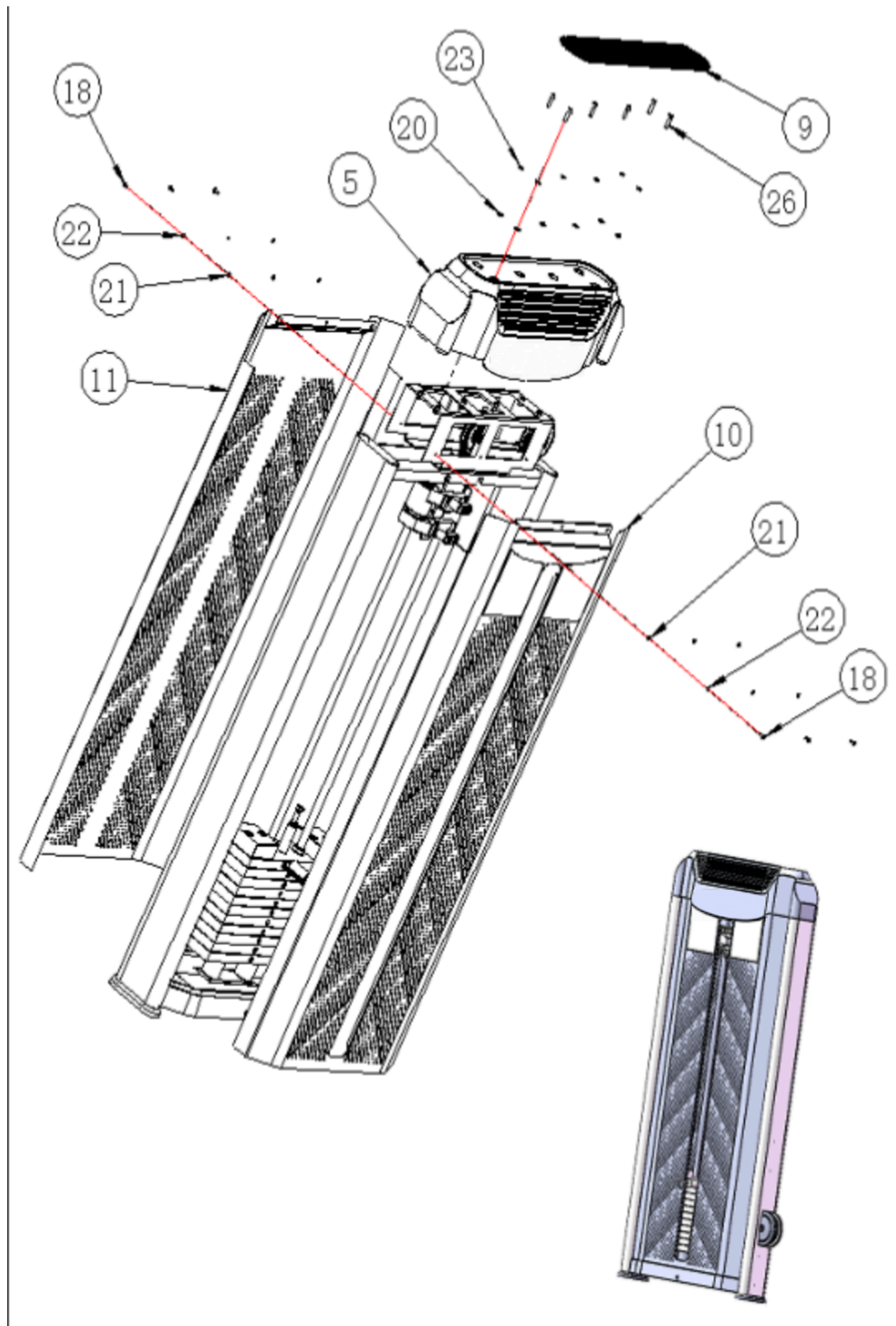
Assembly stage 4



Match the numbered callouts to the Stage 4 parts list. Position the components as shown and use the listed hardware at each connection.

STAGE 4 / DRAWING 3 OF 3

Assembly stage 4



Match the numbered callouts to the Stage 4 parts list. Position the components as shown and use the listed hardware at each connection.

Stage 4: Assemble the Tower

Use Stage 4 references. The stack assembly shown here is detailed in Stage 5; do not dismantle a correctly supplied stack simply to repeat that view.

16. Fit tower pulleys and base pieces

Using Stage 4 references, fit pulleys 16 to frame 1 with M10 × 50 screws 27 or M10 × 65 screw 28 at the depicted positions, washers 19 and locknuts 24. Fit anti-jump guards 15 and shells 17. Attach base pieces 6 and 7 with screws 18, spring washers 22 and washers 21.

17. Prepare the stack and guide rods

If the stack is dismantled, follow the Stage 5 plate-order drawing before completing this step. Keep stack assembly 4 supported at its base. Insert guide rods 13 through the stack in the illustrated orientation and seat the lower ends. Confirm the lower retention and buffers before loading.

18. Fit secondary weights and guide retainers

Fit secondary weights 3 and 2 above the main stack in the order shown. Secure guide sleeves 12 with M6 × 25 screws 25. Attach bracket 14 with M8 × 25 screws 26, spring washers 23 and washers 20. Confirm the guide rods stay parallel and are retained at both ends.

19. Fit the upper cover; leave guards accessible

Secure large upper cover 5 with M8 × 25 screws 26, spring washers 23 and washers 20; fit top cover 9. Fit base pieces 8. Keep front guard 10 and rear guard 11 accessible until the cable path and stack connection are checked.

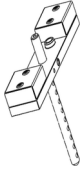
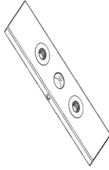
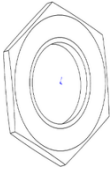
Check before continuing

Tower, guides, pulley guards and cover mounts are secure.

STAGE 5 / PARTS

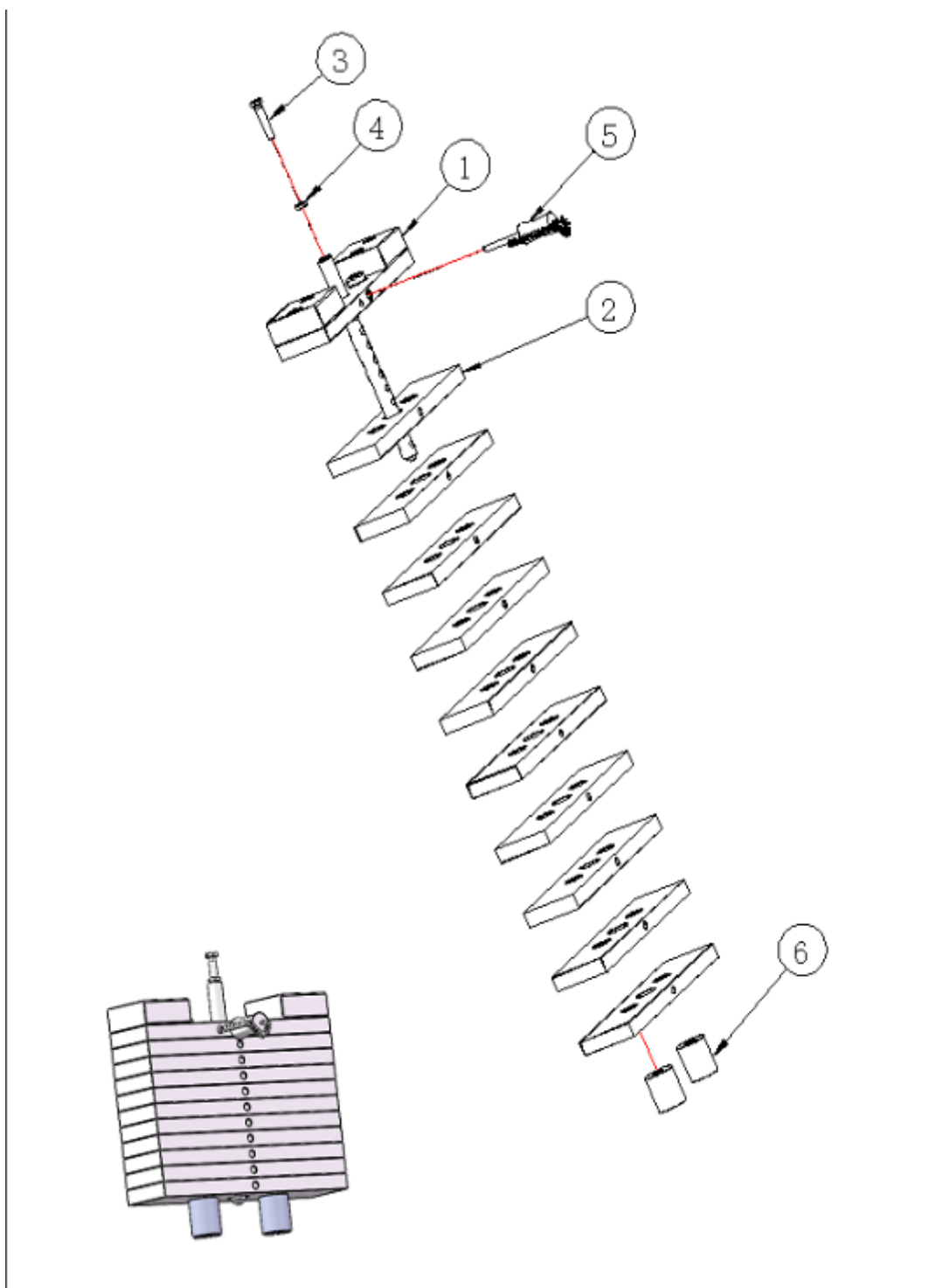
Identify your components

Match each reference and quantity to the drawing for this stage.

<div>REF 1</div> <div>QTY 1</div> <div></div> <div>Weighted head sheet</div>	<div>REF 2</div> <div>QTY 10</div> <div></div> <div>Weight plates</div>	<div>REF 3</div> <div>QTY 1</div> <div></div> <div>Hollow screws</div>
<div>REF 4</div> <div>QTY 1</div> <div></div> <div>Hexagonal thin nut</div>	<div>REF 5</div> <div>QTY 1</div> <div></div> <div>Weight selector pin</div>	<div>REF 6</div> <div>QTY 2</div> <div></div> <div>Counterweight cushioning</div>

STAGE 5 / DRAWING 1 OF 1

Assembly stage 5



Match the numbered callouts to the Stage 5 parts list. Position the components as shown and use the listed hardware at each connection.

Stage 5: Assemble the Weight Stack

This is the stack shown assembled in Stage 4. Inspect a correctly supplied stack without unnecessary dismantling.

20. Fit buffers, plates and top plate

Using Stage 5 references, fit buffers 6 below the ten listed weight plates 2 and top plate/selector stem 1. Preserve the illustrated plate order and selector-hole direction. Keep every plate supported and complete guide-rod retention as described in Stage 4.

21. Check the selector and cable attachment

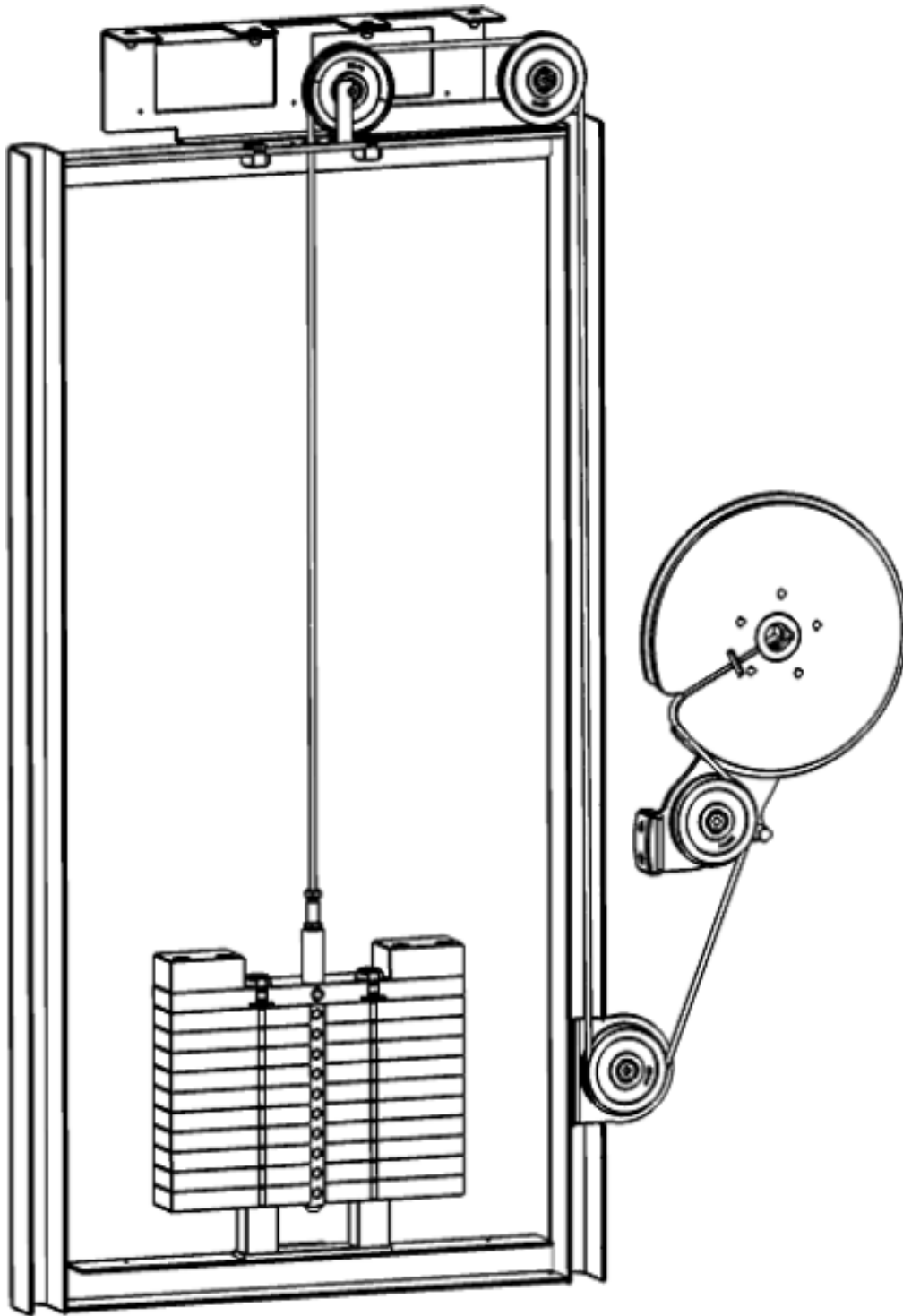
Fit selector pin 5 and verify full engagement. Fit hollow screw 3 and thin locking nut 4 at the top plate as shown. Confirm thread engagement, cable termination and locking requirements against the supplied specification before applying tension.

Check before continuing

Stack plates and guides are retained and the selector engages fully.

STAGE 6 / DRAWING 1 OF 1

Assembly stage 6



Trace the cable using this schematic and the following instructions.
Confirm all cable terminations and adjustments before applying tension.

Stage 6: Route, Guard and Test

Inspect both exercise modes before the equipment enters service.

22. Trace the cable to the cam

Keep the stack fully down. Follow the schematic from the stack over the two upper pulleys, down to the lower tower redirect, around the pulley beneath the cam and into the cam groove. Check the cable remains seated and the baffle does not rub it.

23. Confirm terminations and guards

Verify the stack and cam attachments against the supplied cable kit. The source omits cable length and complete termination settings; obtain these for any loose or uncertain cable before tensioning. Secure Stage 4 front guard 10 and rear guard 11 with screws 18, spring washers 22 and washers 21. Confirm screw 18 dimensions from the kit.

24. Test at the lowest resistance

Confirm all frame, arm, seat, pulley and guide fasteners; obtain specified torque and floor-fixing requirements. Lock the seat and exercise-position selector. Select the lowest stack load and test each exercise mode slowly. Confirm smooth lift and full return without slack, cable rubbing, binding or movement at attachments.

Check before continuing

All adjustment locks, pivots, guards and cable connections pass inspection.

FINAL CHECK

Ready for the first use?

☐ **Frame and hardware**

Confirm that the frame is stable, all required hardware is installed and all connections are secure.

☐ **Adjustments and safeties**

Check that adjustment pins, locking mechanisms and any safety stops engage fully. Verify that pads and handles are secure.

☐ **Moving parts**

Carefully check the full range of movement. Confirm that moving assemblies clear the frame and guards without binding.

☐ **Product-specific inspection**

Check the cable path, guide retention, pads and every adjustment lock.
The stack must lift and return fully, with all guards and connections secure.

☐ **Keep the equipment ready**

Inspect before every use. Wipe contact surfaces dry after use. Have a qualified technician address damaged parts, unusual movement or noise before further exercise.

Need help with assembly?

Contact Build A Gym with your product name, assembly stage, part reference and a clear photo of the issue.

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