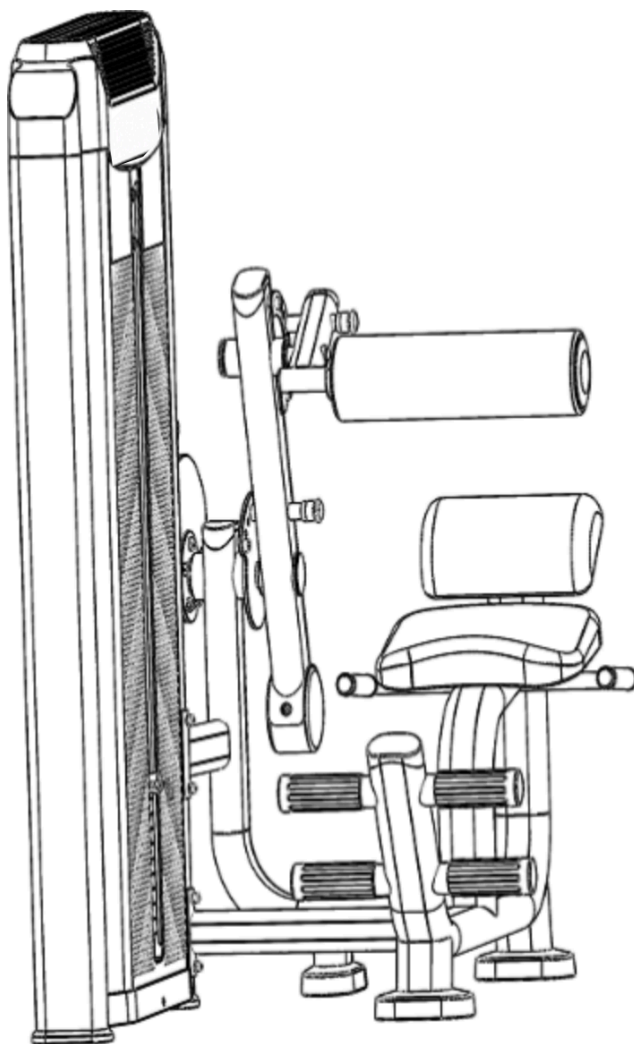


FRACTAL SERIES

Abdominal / Lower Back

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

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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 → Stage 7 → Final inspection

Use the PDF bookmarks to jump directly to a stage.

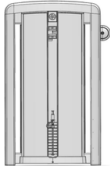
STAGE 1 / PARTS

Identify your components

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

REF 1

QTY 1



Small door

REF 2

QTY 1



Main frame

REF 3

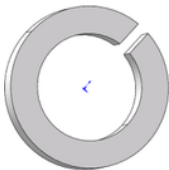
QTY 8



Socket-head screw M10 × 25

REF 4

QTY 8



Spring washer Ø10

REF 5

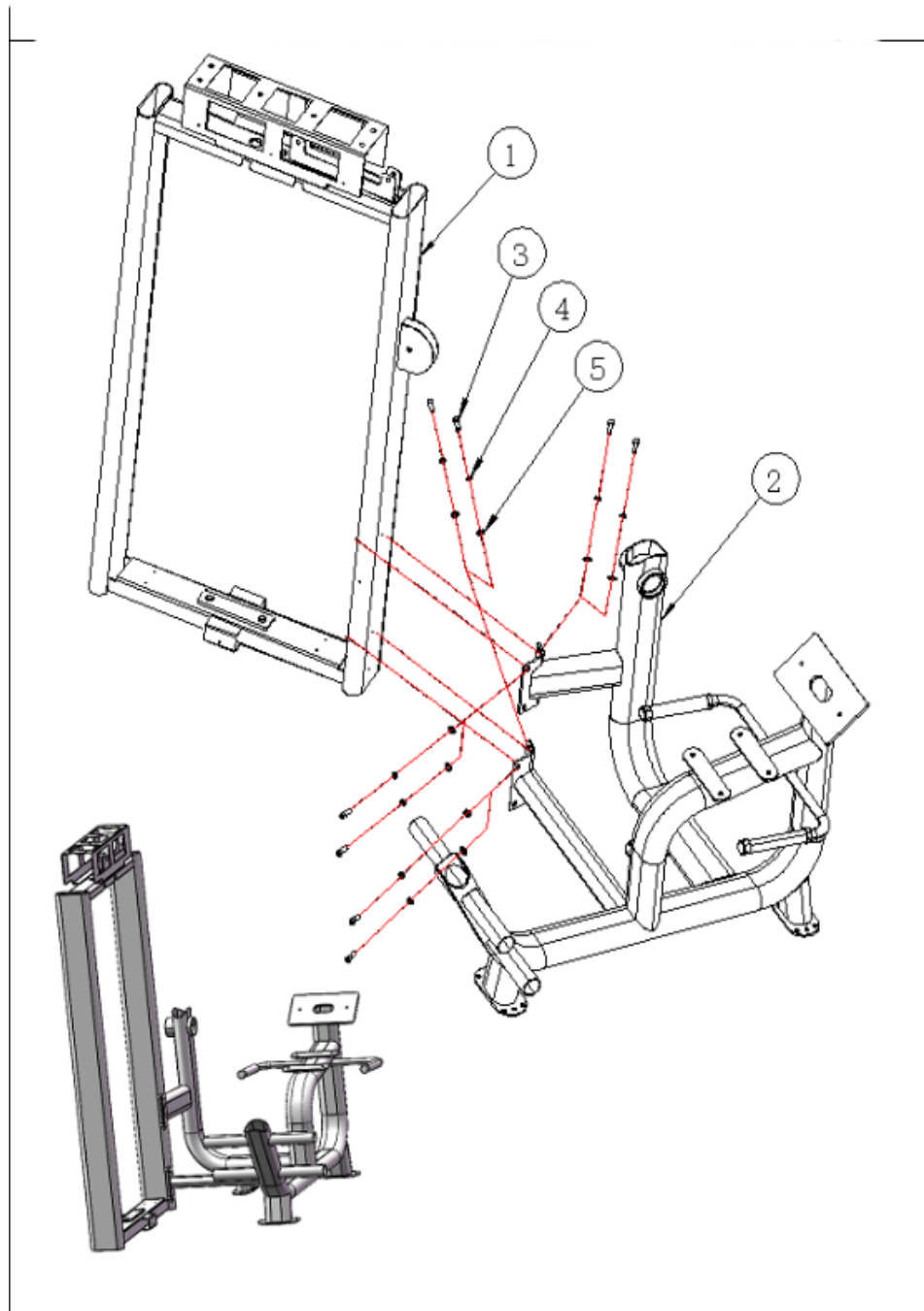
QTY 8



Washers Ø10.3xØ20 × 1.2

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: Join the Tower and Frame

Use Stage 1 references. Keep hands clear of the frame joints.

1. Position and support both frames

Stand tower 1 and main frame 2 on a level floor in the illustrated relationship. Support both independently and align the two frame connection plates with the tower mounting points.

2. Fit the eight frame screws

Fit all eight M10 × 25 screws 3 with spring washers 4 and washers 5 at the depicted joints. Start all screws before final alignment. Secure both connections and verify stability before removing the supports.

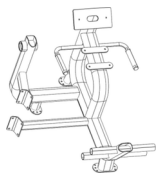
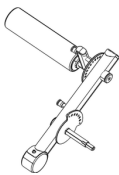
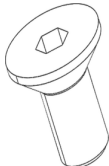
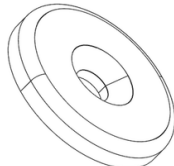
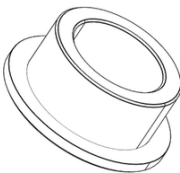
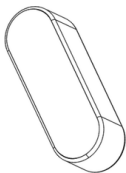
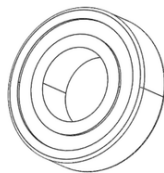
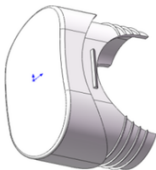
Check before continuing

Both connections are secure and the equipment stands level.

STAGE 2 / PARTS

Identify your components

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

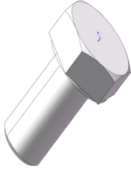
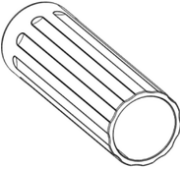
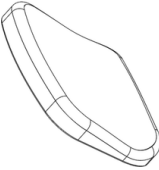
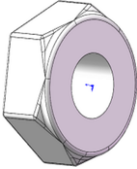
REF 1 QTY 1  Main frame assembly	REF 2 QTY 1  Boom	REF 3 QTY 1  Commutation frame
REF — QTY 1  Rope disc limit	REF 5 QTY 1  Countersunk socket screw M10 × 20	REF 6 QTY 1  Ø50 aluminum end cap
REF 7 QTY 2  Sintered bushing	REF 8 QTY 1  Flat key block	REF 9 QTY 2  Deep groove ball bearings Ø62xØ35 × 14
REF 10 QTY 2  65 × 114 end cap	REF 11 QTY 6  Washers Ø8.3xØ16 × 1	REF 12 QTY 6  Spring washer Ø8

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

STAGE 2 / PARTS

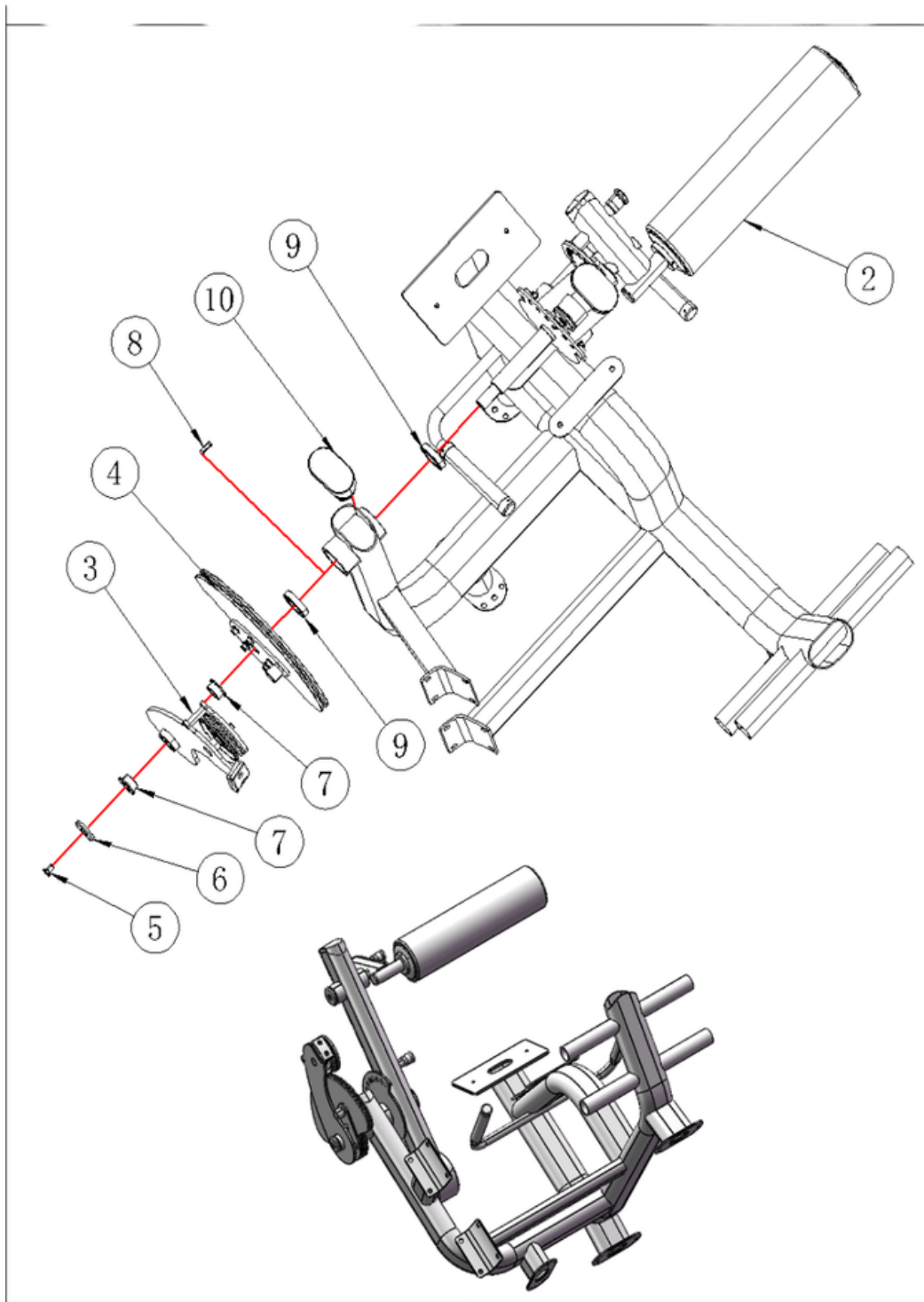
Identify your components

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

REF 13 QTY 6  Hex head bolts M10 × 20	REF 14 QTY 6  Socket-head screw M8 × 25	REF 15 QTY 1  Top chest pad
REF 16 QTY 4  50 foot covers	REF 17 QTY 1  Cushion	REF 18 QTY 3  Footing plastic parts
REF 19 QTY 3  Ground foot cover	REF 20 QTY 6  Locknut M10	

STAGE 2 / DRAWING 1 OF 2

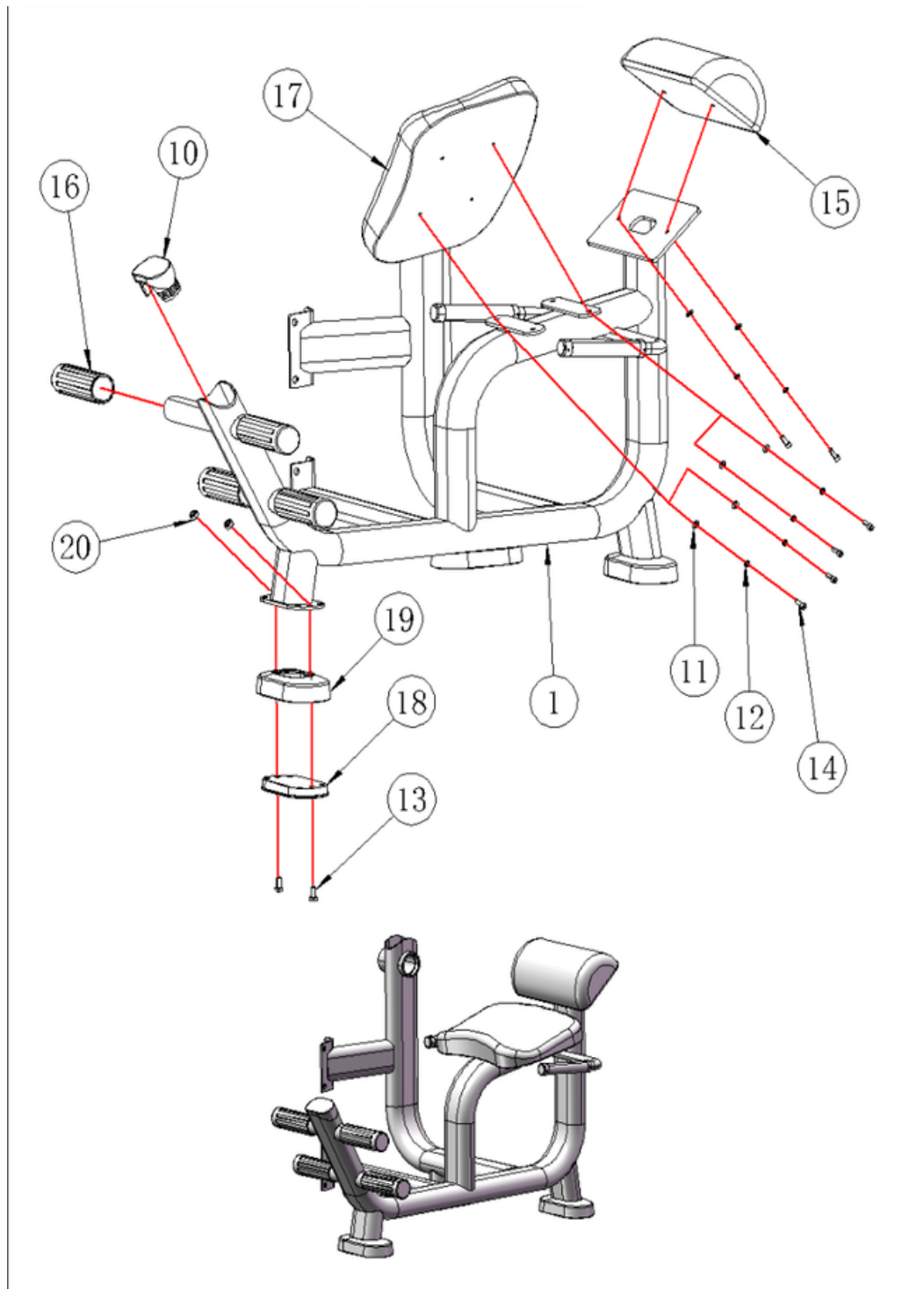
Assembly stage 2



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 / DRAWING 2 OF 2

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: Fit the Pivot and Pads

Part numbers restart in Stage 2. Match the two drawings to this stage's parts list.

3. Install the main pivot

Using drawing 1, seat the two bearings 9 in main frame 1. Support boom 2 as its shaft passes through the bearings. Fit key 8, cable disc 4, bushings 7 and reversing frame 3 in the illustrated order. Retain the end with cap 6 and countersunk M10 × 20 screw 5.

4. Check arm retention and fit end caps

Confirm the shaft, key and cam-side components are positively retained and the arm pivots freely. Fit end caps 10. The cable disc is unnumbered in the list; identify it by reference 4 in the drawing and confirm the supplied assembly.

5. Attach the seat and upper pad

Using drawing 2, attach cushion 17 and upper pad 15 to their illustrated support plates. Use M8 × 25 screws 14, spring washers 12 and washers 11. Start every pad screw before securing the pads.

6. Fit feet and foot-contact sleeves

Fit foot parts 18 and covers 19 with M10 × 20 bolts 13 and locknuts 20 at the shown locations. Fit the four foot sleeves 16. Check the frame rests evenly and all pads and sleeves are secure.

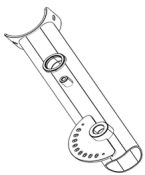
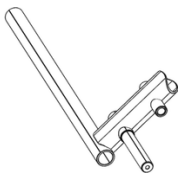
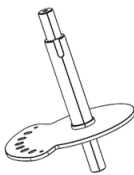
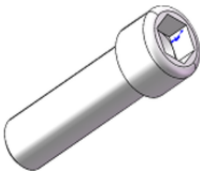
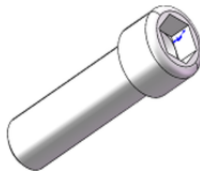
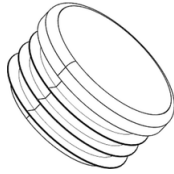
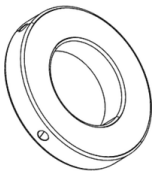
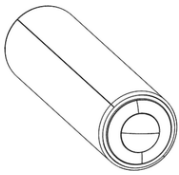
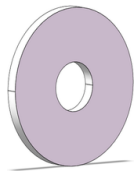
Check before continuing

The pivot is retained and the seat, upper pad and feet are secure.

STAGE 3 / PARTS

Identify your components

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

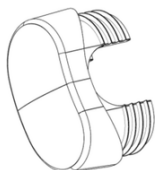
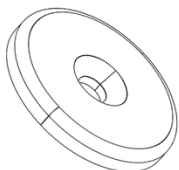
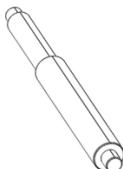
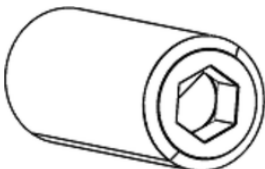
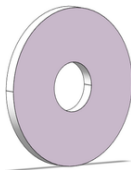
REF 1 QTY 1  Main frame assembly	REF 2 QTY 1  Boom assembly	REF 3 QTY 1  Adjustment assembly
REF — QTY 2  Countersunk socket screw M10 × 20	REF 5 QTY 1  Socket-head screw M8 × 25	REF 6 QTY 4  Socket-head screw M8 × 10
REF 7 QTY 4  Sintered bushing	REF 8 QTY 1  Limit spacer	REF 9 QTY 1  Tube plug
REF 10 QTY 1  Stop ring	REF 11 QTY 1  Leg foam set	REF 12 QTY 1  Large washer

“—” 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  40 × 70 end cap	REF 14 QTY 1  65 × 114 end cap	REF 15 QTY 2  Spring
REF 16 QTY 1  Ø60 aluminum end caps	REF 17 QTY 1  Decorative boards	REF 18 QTY 2  Latch cap
REF 19 QTY 2  Pull pin bar	REF 20 QTY 2  Flat-point set screw M6 × 15	REF 21 QTY 1  Washers Ø8.3xØ16 × 1
REF 22 QTY 1  Socket-head screw M10 × 25	REF 23 QTY 1  70 end caps	REF 24 QTY 1  Large washer

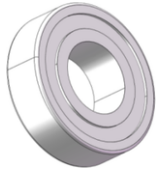
STAGE 3 / PARTS

Identify your components

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

REF 25

QTY 2



Deep groove ball bearings
Ø52xØ25 × 15

REF 26

QTY 2



Washers Ø10.3xØ20 × 1.2

REF 27

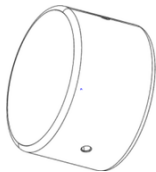
QTY 2



Socket-head screw M10 × 20

REF 28

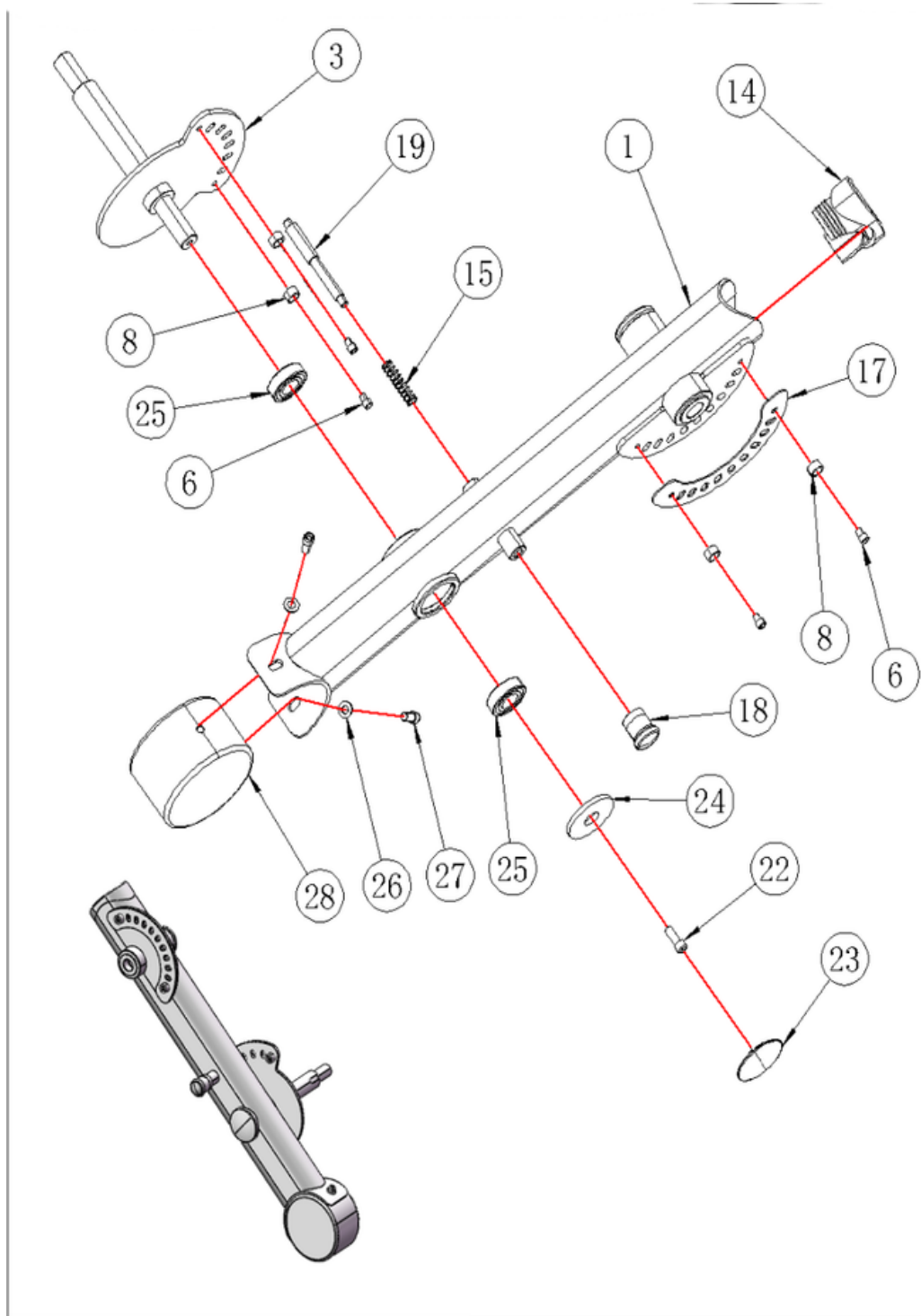
QTY 1



Circular counterweight

STAGE 3 / DRAWING 1 OF 2

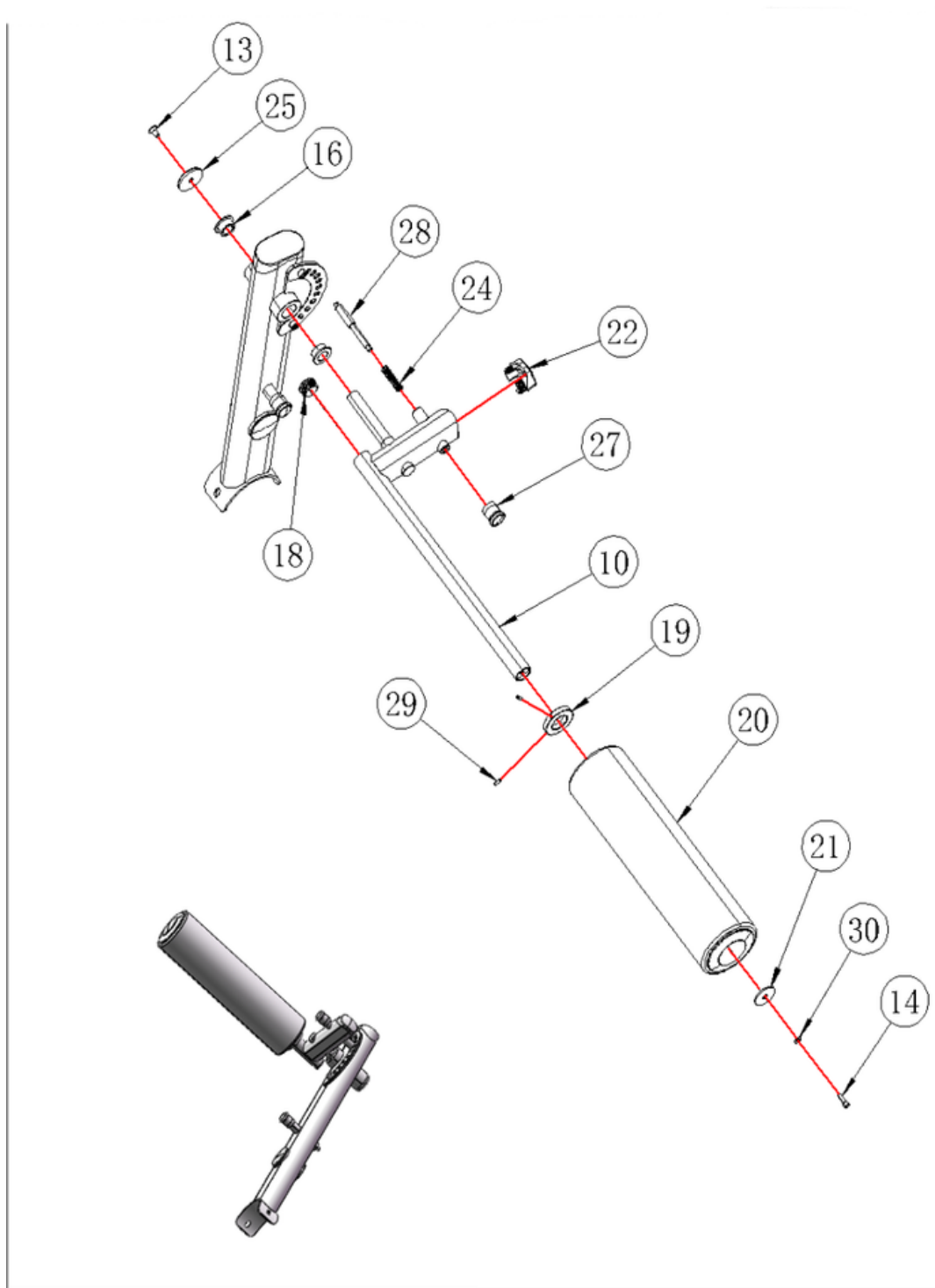
Assembly stage 3



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 2 OF 2

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: Assemble the Adjustable Arm

Use drawing 1 for steps 7–9. Drawing 2 requires the corrected reference mapping before loose-part assembly.

7. Fit the adjustment shaft and bearings

For drawing 1, seat bearings 25 in arm 1 and insert adjustment assembly 3 as illustrated. Fit large washer 24, M10 × 25 screw 22 and cap 23. Keep the arm supported until the pivot is retained.

8. Fit the selector and limit plate

Fit pull pin 19, spring 15 and cap 18 in the order shown. Attach plate 17 using limit spacers 8 and M8 × 10 screws 6. Confirm the pin enters fully and the plate does not obstruct its movement.

9. Secure the counterweight

Support circular counterweight 28 and fit it with M10 × 20 screws 27 and washers 26 at the depicted holes. Fit end cap 14 after fastening. Check the arm remains controlled throughout its permitted movement.

10. Resolve the roller-drawing references

Drawing 2 uses a different reference mapping from the Stage 3 list, including callouts 29 and 30 that the list does not define. Obtain the corrected mapping before assembling loose roller parts. Identify the roller arm, bushings, pin/spring/cap, foam roller, stop ring and end retainers by shape; do not assign hardware from the conflicting numbers.

11. Complete and check the roller assembly

With the corrected mapping, fit the roller arm and its pivot bushings, retention hardware and selector in the illustrated order. Fit the foam roller and stop ring, then secure its set screw and end retainer to the confirmed specification. Verify both adjustment pins lock fully and the roller is retained.

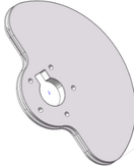
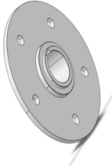
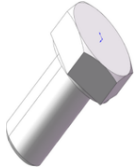
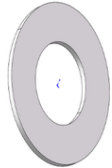
Check before continuing

Both pivots, the roller, counterweight and selector locks are secure.

STAGE 4 / PARTS

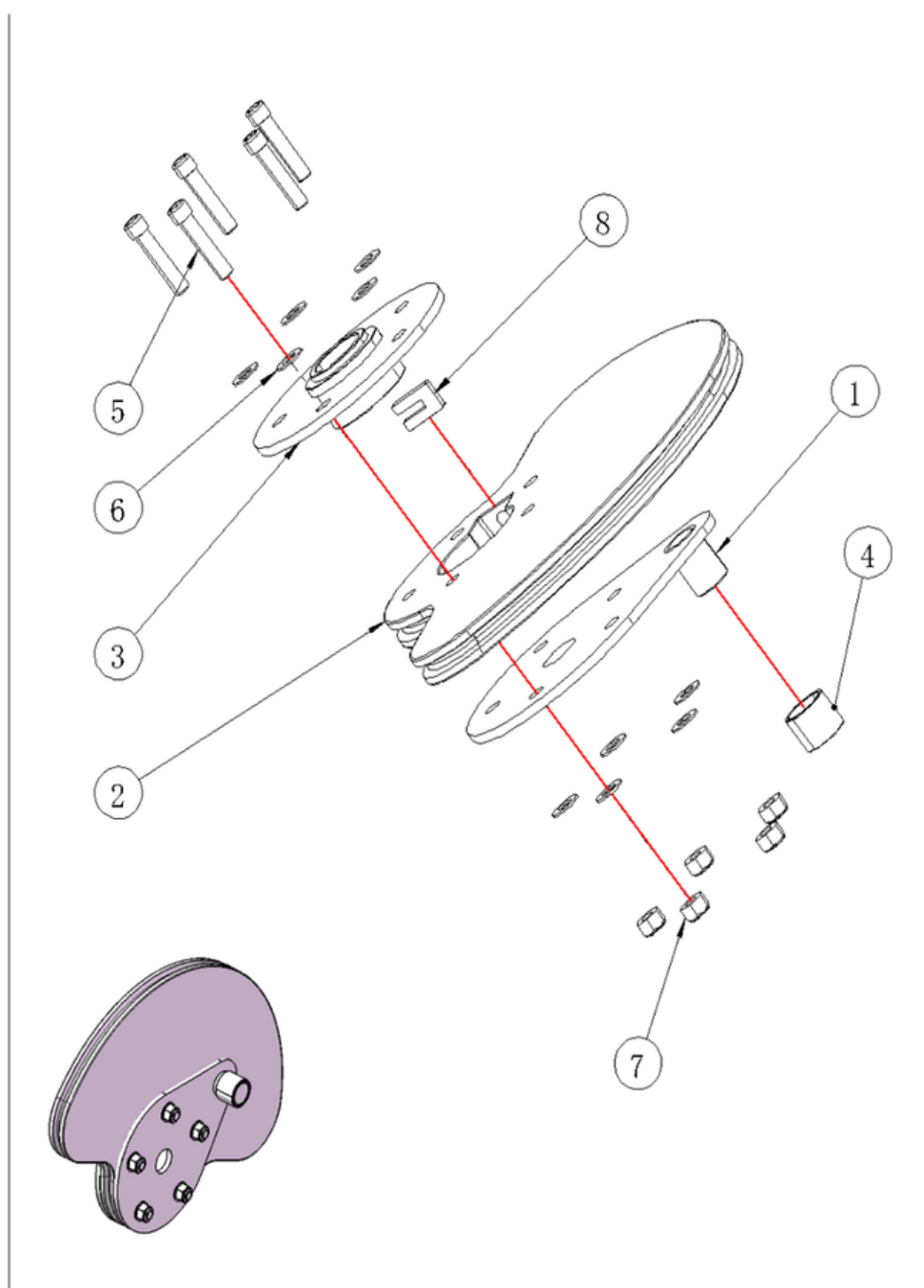
Identify your components

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

REF 1 QTY 1  Rope disc limit assembly	REF 2 QTY 1  Nylon enamel disc	REF 3 QTY 1  Rope disc limit assembly
REF 4 QTY 1  Cushioning sleeves	REF 5 QTY 5  Socket-head screws M10 × 45	REF 6 QTY 10  Washers Ø10.3xØ20 × 1.2
REF 7 QTY 5  Locknut M10		

STAGE 4 / DRAWING 1 OF 1

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 Cable Cam

This view details the cam shown at the main pivot in Stage 2. Do not dismantle a correctly supplied cam unnecessarily.

12. Align the cam layers

Using Stage 4 references, position disc assemblies 1 and 3 around nylon disc 2 in the illustrated orientation. Fit cushioning sleeve 4. The drawing also shows a cable baffle as item 8, omitted from the parts list; confirm that part and its placement before assembly.

13. Secure and inspect the cam

Fit the five M10 × 45 screws 5 with washers 6 on both sides and locknuts 7. Keep all layers aligned while securing them. Confirm the cable groove is unobstructed and the cam stop and baffle agree with the supplied assembly.

Check before continuing

The cam is secure, aligned and ready for cable routing.

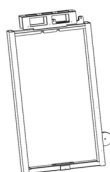
STAGE 5 / PARTS

Identify your components

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

REF 1

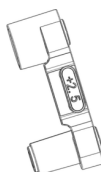
QTY 1



Small frame assembly

REF 2

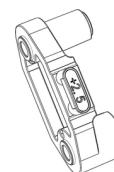
QTY 1



Sub-counterweight t

REF 3

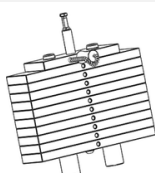
QTY 1



Sub-counterweight ht

REF 4

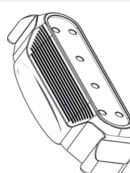
QTY 1



Balance and recombination

REF 5

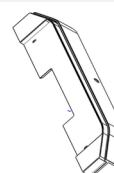
QTY 1



Large upper cover

REF 6

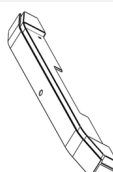
QTY 2



Front base

REF 7

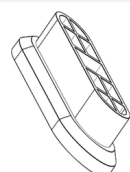
QTY 1



Rear base

REF 8

QTY 2



Base

REF 9

QTY 1



Top cover

REF 10

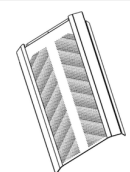
QTY 1



Front guard

REF 11

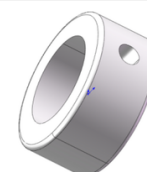
QTY 1



Rear guard

REF 12

QTY 2

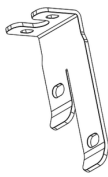
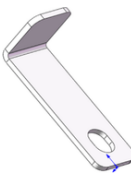
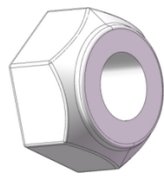


Guide rod retaining sleeve

STAGE 5 / 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 5 / 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

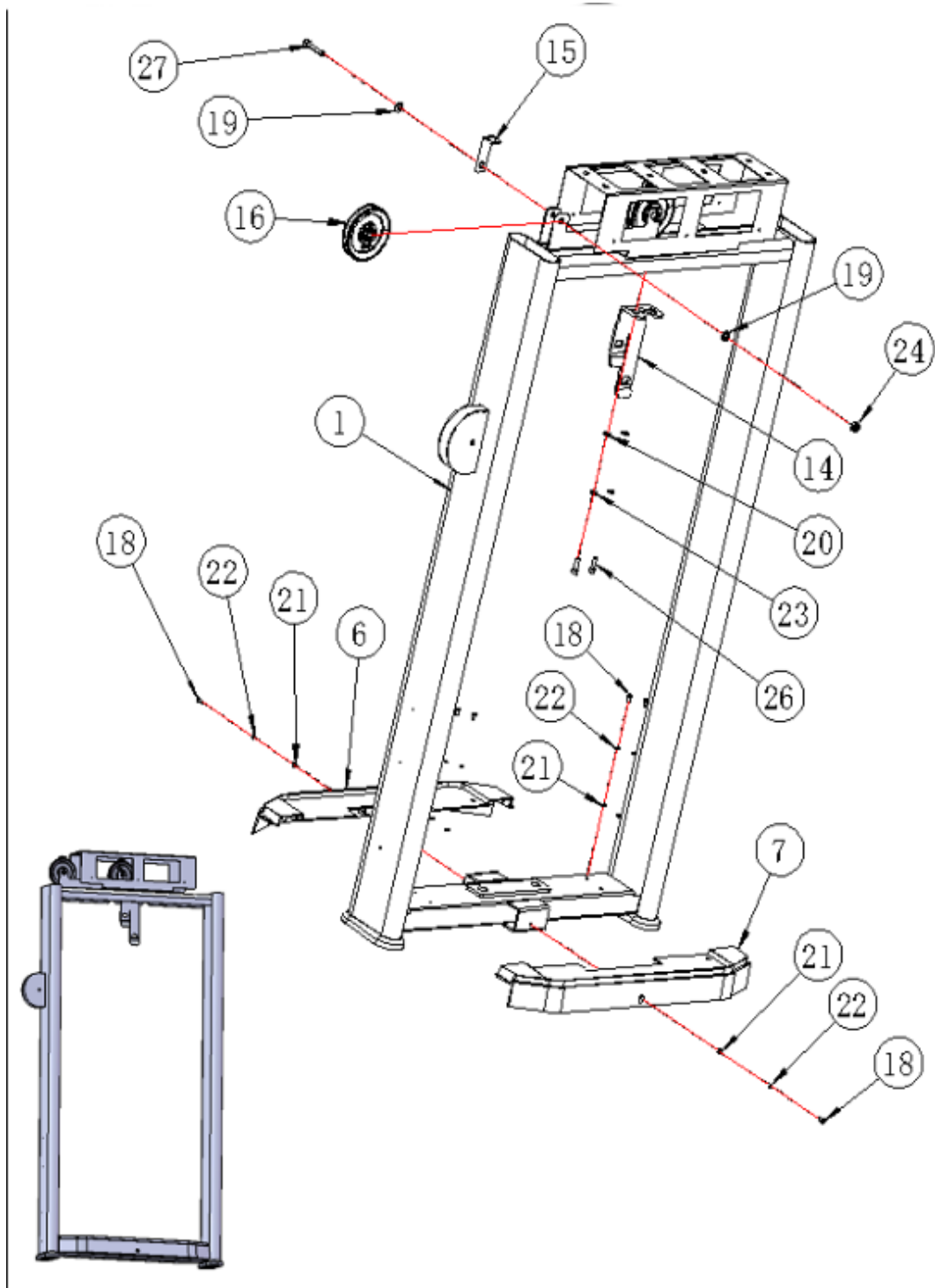
QTY 1



Socket-head screw M10 × 65

STAGE 5 / DRAWING 1 OF 3

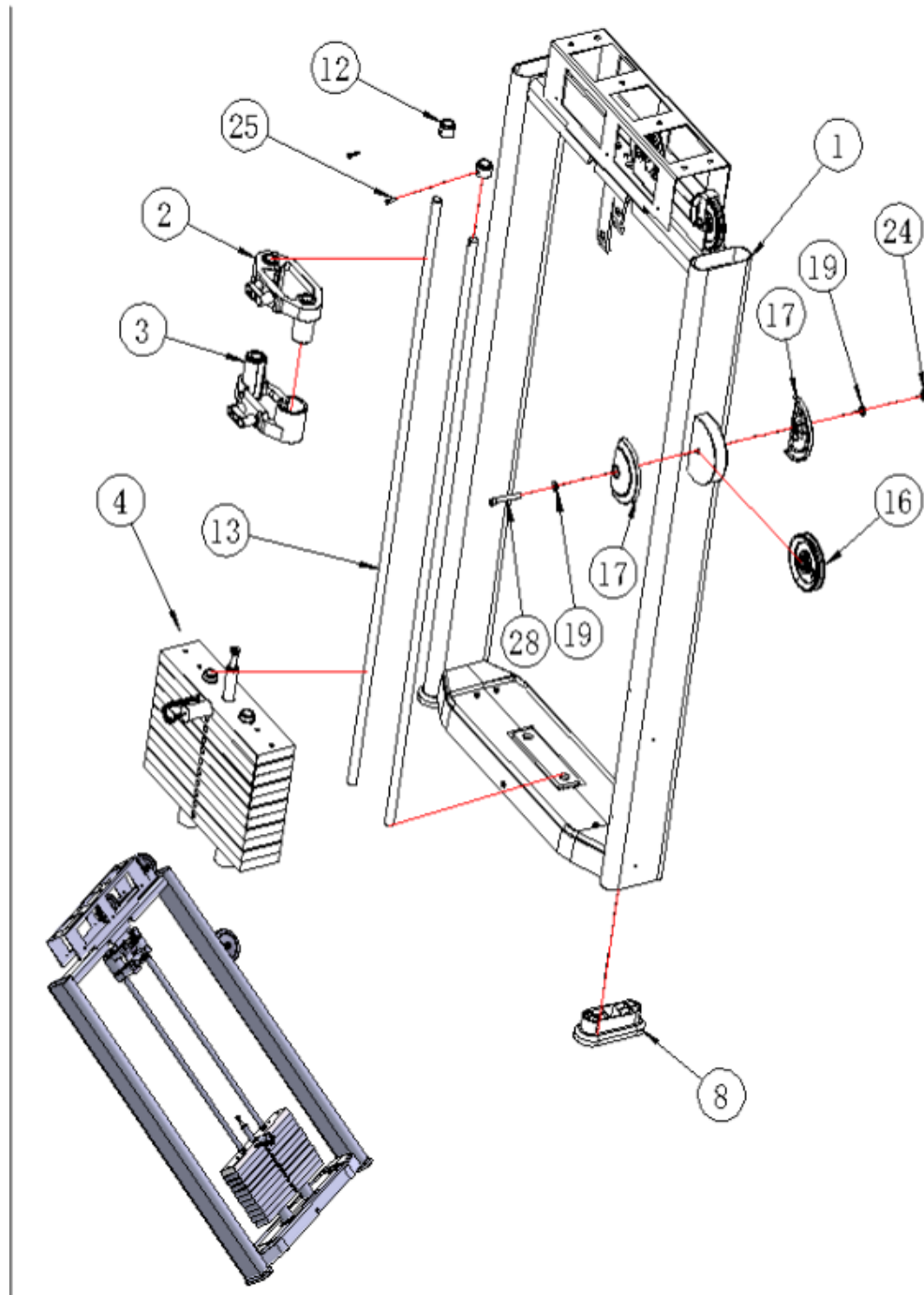
Assembly stage 5



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 / DRAWING 2 OF 3

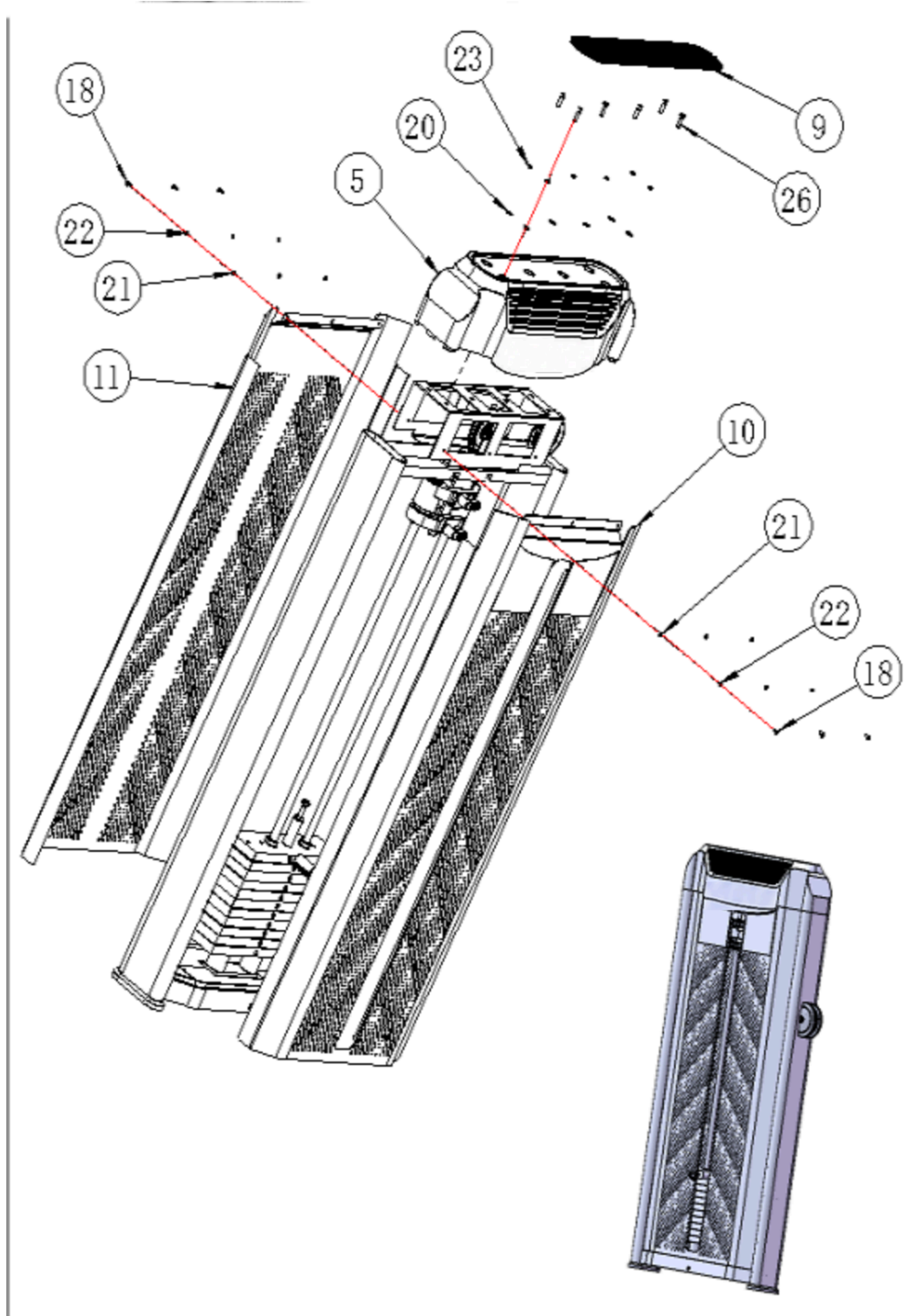
Assembly stage 5



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 / DRAWING 3 OF 3

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 Tower

Use Stage 5 references. The stack shown here is detailed in Stage 6; do not dismantle a correctly supplied stack simply to repeat that view.

14. Fit tower pulleys and base pieces

Using Stage 5 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.

15. Prepare the stack and guide rods

If the stack is dismantled, follow the Stage 6 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.

16. 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.

17. 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.

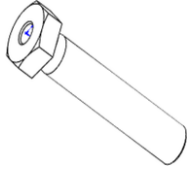
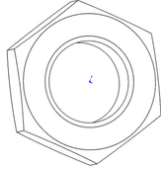
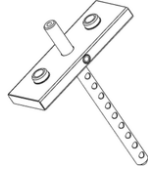
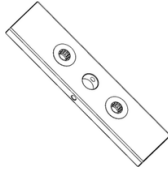
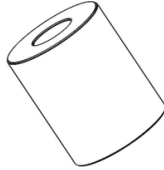
Check before continuing

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

STAGE 6 / PARTS

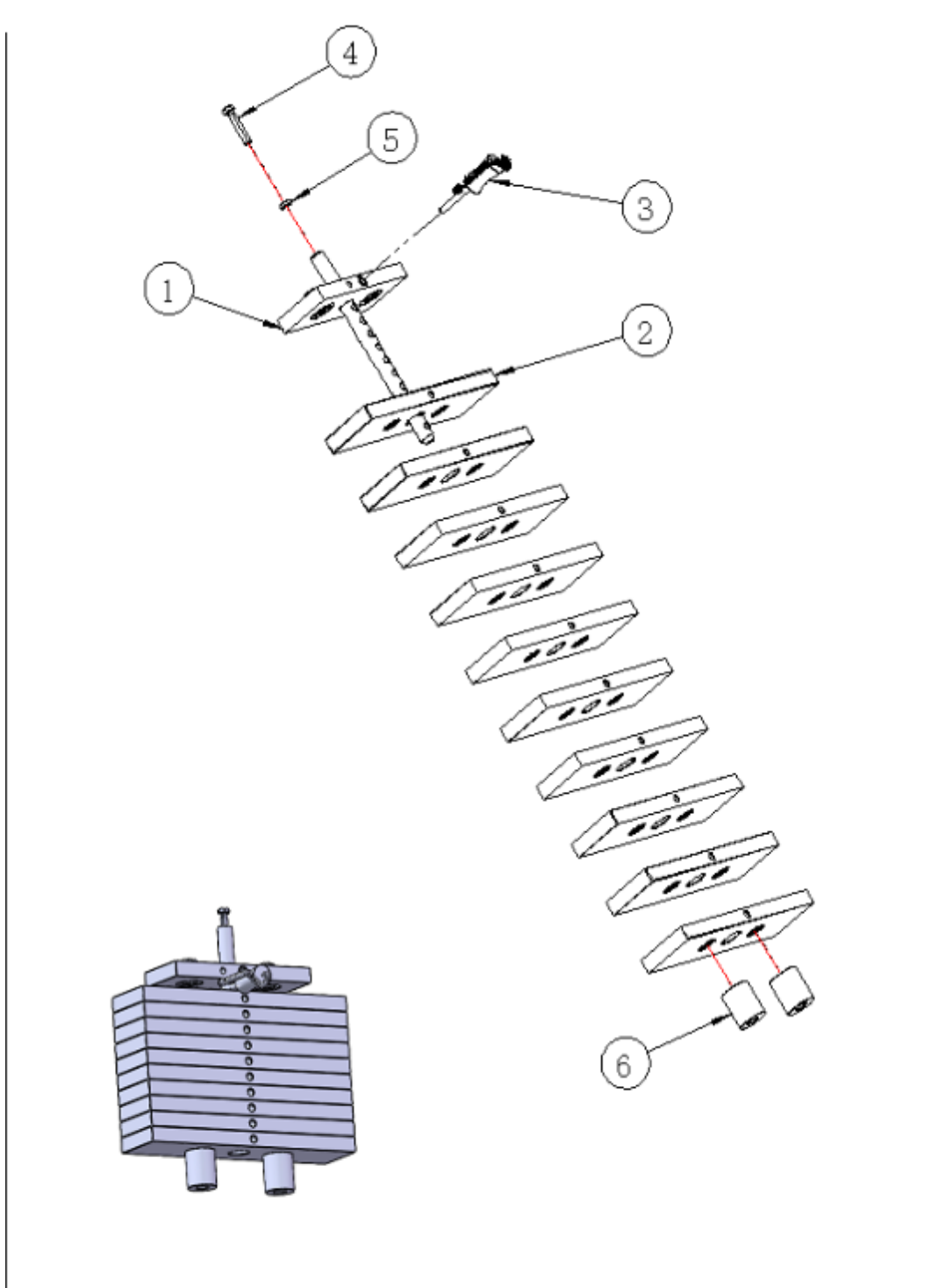
Identify your components

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

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

STAGE 6 / DRAWING 1 OF 1

Assembly stage 6



Match the numbered callouts to the Stage 6 parts list. Position the components as shown and use the listed hardware at each connection.

Stage 6: Verify the Weight Stack

This is the stack shown assembled in Stage 5. Inspect a correctly supplied stack without unnecessarily dismantling it.

18. Confirm the stack component mapping

The Stage 6 drawing and list use conflicting reference numbers. Identify the two buffers, ten listed weight plates, top plate/selector stem, selector pin, hollow screw and thin nut by their illustrations. Obtain the corrected reference mapping before assembling loose or uncertain parts.

19. Assemble and retain the supported stack

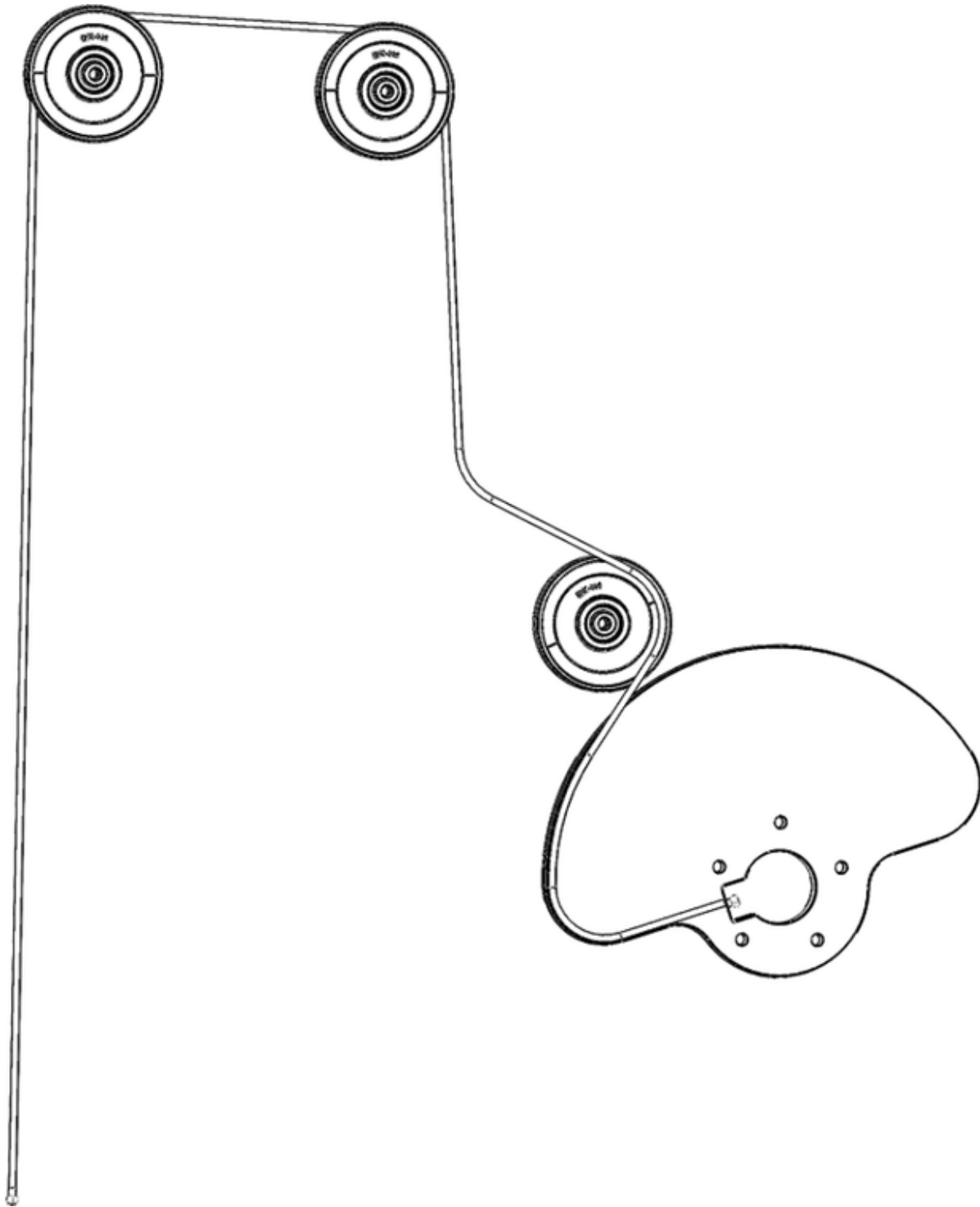
Preserve the illustrated plate order and selector-hole direction. Fit the lower buffers, plates and top plate while keeping every plate supported. Complete the guide retention in Stage 5. Confirm the selector pin engages fully and the hollow-screw connection and locking nut are secured using the supplied termination specification.

Check before continuing

Guides and plates are retained, and the selector and cable attachment are confirmed.

STAGE 7 / DRAWING 1 OF 1

Assembly stage 7



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

Stage 7: Route, Guard and Test

Confirm the Stage 3 and Stage 4 discrepancies before testing either mode.

20. Trace the cable through the redirects

Keep the stack fully down. Follow the schematic from the stack over the two upper pulleys, around the redirect beside the cam and into the cam groove. Confirm the cable stays seated and clears the baffle and surrounding frame.

21. Confirm the cable attachments

Verify the stack and cam terminations against the supplied kit. The schematic omits cable length and complete termination settings; obtain these for any loose or uncertain cable before tensioning. Check that both exercise positions leave the cable properly seated.

22. Install guards and verify fastening

Secure Stage 5 front guard 10 and rear guard 11 with screws 18, spring washers 22 and washers 21 after routing inspection. Confirm screw 18 dimensions from the kit. Check all structural and pivot fasteners; obtain torque and floor-fixing requirements before use.

23. Test at the lowest resistance

Lock both arm adjustments and select the lowest stack load. Test abdominal and lower-back modes separately with slow controlled motion. Confirm smooth stack lift and full return, retained rollers and no cable slack, rubbing or binding. Stop if any attachment or adjustment moves.

Check before continuing

Both exercise modes and all guards, adjustments 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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